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ABSTRACT

A bibliography of readings in higher education, which covers 1968-1981, deals with subjects generally approached from an aggregate state or national perspective. For each publication, the following bibliographic information is provided: title, author(s), publisher, and number of pages, and abstracts. Subject and author indexes are included. The topical areas and the associate editors who provide an introductory description of their topics and an outline of subtopics are as follows: comparative national systems (Burton R. Clark), demography (Stephen P. Dresch), economics (Stephen A. Hoenack), educational opportunity (K. Patricia Cross), finance (David W. Breneman), governance and coordination (John K. Folger), history (Frederick Rudolph), independent higher education (Virginia Ann Hodgkinson), institutional role and mission (John D. Millett), quantitative approaches to management (Ben Lawrence), philosophy (Kenneth D. Benne), policy and general reference (Kent Halstead), productivity and cost-benefit analysis (Wayne R. Kirschling), research and research administration (Frederick E. Balderston), resource allocation and budgeting (Richard J. Meisinger, Jr.), student characteristics and development (Alexander W. Astin), student financial assistance (Lawrence E. Gladieux), and work and education (Lewis C. Solmon). (SW)

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HIGHER EDUCATION: A BIBLIOGRAPHIC HANDBOOK

Volume I

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June 1984

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Introduction

Why not spend some time in determining what is worthwhile for us, and then go after that?
—William Ross

The art of reading is to skip judiciously.
—P.J. Hamerton, *The Intellectual Life*

But even wholesale skipping is likely to be ineffective in dealing with today's flood of new publications. Scholars cannot keep track of, much less read, the volume produced. Libraries are unable to buy everything, and even if they could, they would be unable to store it. More than 200 years ago, Voltaire observed that "The multitude of books is making us ignorant." Then his observation may have been an exaggeration; now it is seen as a portent of things to come.

The Library of Congress currently adds between 300,000 and 400,000 volumes and pamphlets to its collection each year. In the field of higher education, the Educational Resources Information Center (ERIC) estimates that over 4,000 books, journal articles, reports, speeches, and other fugitive documents are published each year.

The increasing number of scholars results in more and more publications. There is no practical way to stem such expansion, nor should research at any level be discouraged. The way to handle the volume of literature lies not in curtailment, but in distinguishing what is excellent from what is merely competent, and then making the selected volumes more accessible.

This type of approach was initially advanced by August Frugé (former director of the University of California Press), who developed the distinction between "publishing" and "recording." What is needed, in his view, is a two-track system. One track is for traditional publishing of rigorously selected volumes; the other track is for recording and making available through a centralized bibliographic service lesser works that may be useful sometimes but that do not merit publication. Overall implementation would, of course, be difficult. A major concern is the means by which publications of "high quality" can and should be identified.[1]

The purpose of this bibliography and future editions is to identify and publicize on a continuing basis high-quality references in higher education. In preparing this volume, the tack taken to determine recommended reading has been to rely primarily on the opinions of experts. Through professional experience and informed judgment, 40 noted experts have attempted to select only substantial and distinctive works, with emphasis on practical value. These individuals, chosen to serve as independent associate editors in their fields of specialization, have ultimate responsibility for their selections, but they have consulted freely with their associates and colleagues in making these selections.

The comprehensive view of higher education assumed for this bibliography encompasses all major *activities* of colleges and universities (e.g., financing, teaching, planning, governance, research); *programs and organization* (e.g., admission, educational opportunity, community colleges); *resources* employed (e.g., faculty, students, facilities, computing services); and approaches used to *study* the field (e.g., economics, demography, management, history). The object has been to design a basic higher education library of value to virtually all individuals and organizations that seek to have essential reference works identified or at hand. Dr. Charles W. Eliot has termed such a collection a "five-foot shelf."

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[1] The two-track approach was studied by the National Enquiry into Scholarly Communication, which found considerable merit in the proposal yet questioned certain aspects of its workability, including whether adequate safeguards could be established to preserve standards in the selection process. (See *Scholarly Communication, The Report of the National Enquiry*, The Johns Hopkins University Press, Baltimore, Md., pp. 103-105.) The work of the National Enquiry is being continued by the Committee on Scholarly Communication of the American Council of Learned Societies (ACLS).

This expresses the concept accurately, even if it fails to reflect present-day dimensions.[2] The value of this kind of bibliography may have been what Samuel Johnson had in mind when he said, "The next best thing to knowing something is knowing where to find it."

The intended audience for this bibliography are those who study higher education and attempt to apply recent findings and advance the field—planners, administrators at all levels, and faculty and researchers in higher education. Planners, in particular, should find the breadth of this bibliography matching their own broad mission. The content, in emphasizing current theory and practice, is most suited for planning, of lesser value for research. Researchers and scholars, however, should find many useful entries in their disciplines, although highly specialized theoretical works may be excluded. Administrators can employ the bibliography more for occasional reference than detailed study. Again, the attention given to practice and technology should prove helpful. Those most affected by educational policies, notably students and faculty, as well as the regents and citizens who enact and finance policy, can use this bibliography to inquire further into today's issues.

The bibliography is being issued in two volumes.[3] The first deals with subjects generally approached from an aggregate state or national perspective; the second embraces topics usually studied at the individual institutional level. Neither volume is exclusive in these aims. The time period covered extends from publications issued in 1968 through 1981 and soon-to-be-published works of anticipated value. Periodic supplements will keep the bibliography up-to-date. Author and title indexes are provided.

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[2] The nearly 1,400 entries in this two-volume bibliography would occupy about 90 linear feet of shelf space, or, more in line with Dr. Eliot's vision, a box of microfiche 4 × 6 × 7 inches.

[3] Volume II was published by NIE in May 1981. It is for sale ($10) from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (202-783-3238). In ordering, be sure to specify the title, GPO stock number (065-000-00114-4), and the number of copies desired.

Bibliographic Design

Bibliographies come in assorted shapes and sizes, their composition established by five basic elements: (1) subject universe, (2) organization, (3) selection criteria, (4) annotation, and (5) plan for updating. To ensure proper usage of this volume, its design is set down in some detail.

Subject Universe. The subject of this bibliography—higher education—can be described as a community and its industry. The *community* of higher education in the United States is, first, the 3,253 colleges and universities providing degree-credit study and the associated state and national organizations and Federal agencies serving these institutions. In addition to this basic "collegiate" group, there are a near-equal number of private career (proprietary) schools within the broader "post-secondary" concept that are treated in a separate chapter. Excluded are military training and the vast complex of intramural education programs conducted by industry.

The *industry* or business of this community encompasses instruction, public service, and research. These missions are accomplished through elements that constitute the substance of this bibliography—the *activities* of colleges and universities; the *organization and programs* of institutions, together with the public and government roles; the *resources* employed; and the *corporate knowledge* developed through experience and study of education by the different disciplines.

This community and its industry are the subject of this bibliography. The literature for higher education, as defined, is further narrowed in two ways: (1) the focus is tightened slightly by greater attention to current practice and technology than to theoretical research; and (2) greater attention is given to scholarly works based on systematic observation, study, or experimentation than to editorial or essay-type commentary. Yet these are less restrictions, more guidelines. Theoretical works are included where necessary to complete and establish the research or "cutting edge" of a topic. Also, many works of great value to administrators deal subjectively with controversial topics. These studies, some of which are included in "policy" sections, enliven the field by stimulating healthy debate and developing proper perspective.

Organization. For this bibliography, the field of higher education is organized in two volumes and 38 topic areas with various subdivisions. The first volume contains topics generally studied in an aggregate universe or collective whole at the state or national level—a macro approach. The second volume includes topics typically studied in the context and from the perspective of the individual institution or campus—a micro approach. A few topics such as finance and budgeting, planning, and managment are addressed in both volumes from different perspectives. Most topics are treated once, located in the volume of dominant approach but providing both macro and micro coverage. Thus, while each volume has a special focus, it is not restrictive in the sense that continuity and completeness of subject matter are overruling.

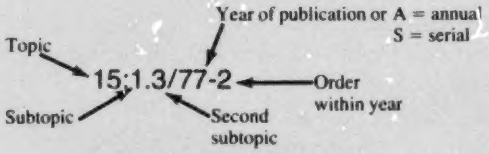
The 38 topic areas are listed below. Each topic constitutes a relatively distinct component of higher education. Many, in fact, are academic and/or occupational fields subject to concentrated study and mastery by a specialized group of practitioners, scholars, and researchers. The associate editors provide an introductory description of their topics and an outline of subtopics. For both volumes, the number of subtopics totals 246, providing a surprisingly high degree of classification detail. These subdivisions are listed in the Contents, as well as in a special classification summary beginning on page xxvii.

Volume I
1. Comparative National Systems
2. Demography
3. Economics
4. Educational Opportunity
5. Finance
6. Governance and Coordination
7. History
8. Independent Higher Education
9. Institutional Role and Mission
10. Management—Quantitative Approaches
11. Philosophy
12. Policy and General Reference
13. Productivity and Cost-Benefit Analysis
14. Research and Research Administration
15. Resource Allocation and Budgeting
16. Student Characteristics and Development
17. Student Financial Assistance
18. Work and Education

Volume II
19. Admission/Articulation/Retention
20. Business Administration
21. Campus and Building Planning
22. Community Colleges
23. Computing Services
24. Curriculum
25. Educational Communication and Technology
26. Faculty
27. Health Science Education
28. Institutional Advancement (Public Affairs)
29. Institutional Financing and Budgeting
30. Institutional Management
31. Institutional Planning, Studies, and Analyses
32. Leadership and the Presidency
33. Libraries
34. Lifelong Learning
35. Private Career Schools
36. Space Management and Projection
37. Student Affairs
38. Teaching and Learning

Using topic areas as currently practiced and studied encourages the inclusion of supporting and reference material to complete each field. This strength is also a weakness, for the interface between related topics is often blurred and overlapping, more so than if a theoretically derived classification system had been used. Although divisions have been made with as much logical association as possible, many entries might have been classified equally well under two or three different headings. The literature in higher education is not compartmentalized as neatly as the classification plan would suggest. Large volumes, in particular, may deal with a number of related but distinctive topics. For location, the rule employed has been to place material based on the dominant subject matter or perspective taken. In every instance, material is assigned only one identification number under the dominant topic involved, although works may be annotated in more than one location. Cross-references have been made only if a chapter or section in a work deals substantially with another topic to a degree that it could have been listed within that topic independently.

To provide an abbreviated identification for cross-referencing and author indexing, each entry is assigned a single number corresponding to its location within the taxonomy system and year of publication. The number order can best described by this example:



Selection. Bibliographers seldom label their work as comprehensive, as the chances of inadvertent exclusions are too high. At the same time, truly "selective" compilations are also rare, since the justification of one's choices is an altogether awkward task. [One early bibliography claimed to be "*highly* selective" (emphasis added) while reporting nearly 3,000 entries in college and university administration for a 10-year period.] Most bibliographers are content to find as many entries as possible in the time allotted, the selection being controlled as much by available resources as considerations of quality.

This bibliography, however, attempts to be both comprehensive and selective.

Critical selection is at once the most important, difficult, and rare ingredient of bibliographic endeavors. The theory behind selection is obviously to separate from many works those most valuable, so that countless other readers might save time and energy. (The amount of savings can be substantial, as evidenced by the estimated 3,000 candidate works reviewed for inclusion in this two-volume compilation.)

Quality as a relative matter is always difficult to judge, generally made more so by the absence of benchmarks as standards for comparison. Writings, however, are clearly not egalitarian; excellent work can easily be distinguished from the bad. The difficult but essential task is selecting from among many competent works those of distinction, and justifying this choice.

Two criteria guided the selection of these recommended references—relevancy and quality. The material must, of course, be *relevant* to the higher education universe. It must deal with or have a direct bearing on one or more of the classification topics. The only exceptions are a few volumes that deal with a single discipline as a science, e.g., management or economics, apart from the relationship to higher education, where the transfer value is readily apparent.

Quality in scholarly inquiry is interpreted here as having two assessible dimensions: substance, and distinctiveness or originality. To be included in the bibliography, entries must be substantial works containing enough useful, essential, or critical information to warrant a thoughtful reader's attention. Limited studies of marginal or restricted value have been excluded.

Entries must also make a *distinctive* contribution. Original work introducing valuable new analyses, procedures, observations, conclusions, data, etc., were sought. From a number of good works on the same topic, the best have been chosen. Syntheses or summaries of material are also included if they accurately capture and capsulize the main work. Thus, if compendiums effectively summarize and reference earlier studies, the studies themselves are generally not entered separately. Most works achieve excellence through a combination of new and existing research. Some older landmark studies remain distinctive when newer efforts fail to capture the unique contribution that so often characterizes the original work; recency in itself is no guarantee that anything new is being said.

Application of these criteria has resulted in the selection of many more books than journal articles. This weakness in coverage is due in part to the difficulty encountered in searching the many journals. The often narrow scope of papers and their frequent focus on specialized research findings as opposed to practical technology suggests other reasons for this limited inclusion. Some dissertations and fugitive materials met the criteria of substance and distinctiveness, but frequently were too specialized to be included.

Annotation. As titles give little or no information about the nature and value of contents, annotation is of vital importance. A full annotation explains what the volume is about and assists readers in identifying those entries most likely to meet their specific needs.

As with standard bibliographic practice, the annotations of this compilation outline the general content, scope, and special features of each entry. They are more than abstracts since the content is further examined to identify the unique contributions or distinctiveness. Also, the annotations may include evaluative and critical appraisal where such appraisal aids in interpreting worth.

Updating. Bibliographies do not age well. After just a year they show serious signs of senility—an unfamiliarity with what is going on around them. Research takes up from the past so that new discoveries eclipse what has preceded them. An extreme case occurs when a comprehensive treatise is published that effectively summarizes and thereby renders obsolete a host of earlier fragmentary works. Hence the modern bibliographer must play an active role in keeping in touch.

An attempt will be made to update this bibliography by providing periodic supplements of new material. Updated comprehensive editions will be published less frequently. In most instances, older material will be retained in new issues of the bibliography for historical purposes. This process will be greatly facilitated and made more accurate with the cooperation of readers in informing the appropriate associate editors of candidate material. Copies of, or information on, books and journal articles believed to meet the selection criteria should be brought to their attention. (A *Special Request* guide is included to aid in such notification.) This joint effort will expand the search capacity considerably and thereby reduce the chance of oversight.

Acknowledgments

The work of recent bibliographers deserves special citation. M.M. Chambers, Roger R. Kelsey, Lewis B. Mayhew, and L. Richard Meeth[4] covered the field of higher education in the sixties and early seventies with a personalized style and rare commitment not likely to be seen again. Discontinuation of their work, which prompted this effort, reminds us of our dependence on their service.

While the editor had the concept for this bibliography and the idea for its publication, the associate editors had the responsibility for topic definition and entry selection and annotation. They have performed this arduous work diligently and professionally with scant reward.[5]

At the National Institute of Education, David Mandel and Saul Yanofsky established a responsive and supporting environment that made this intramural research possible and enjoyable. Thanks is due Joyce Harris for compilation of the title and author indexes.

All research is progressive and collective, the more recent advancements of a few depending on the earlier contributions of many. The very real value of the hundreds of works that have been examined but are not included in this volume is fully recognized. For these investigators, proper perspective is best described by Emily Dickinson's great definition, in her *Publication is not the business of poets:* being a poet is all, being known as a poet is nothing.

---

[4] Chambers, M. M., *A Brief Bibliography of Higher Education in the Middle of the Nineteen Sixties*, School of Education, Indiana University, Bloomington, 1966.

Kelsey, Roger R., *A. H. E. Bibliography on Higher Education*, American Association for Higher Education, Washington, D.C., 1973-74 (1968 composite volume).

Mayhew, Lewis B., *The Literature of Higher Education*, American Association for Higher Education, Washington, D.C., 1965-72.

Meeth, L. Richard, ed., *Selected Issues in Higher Education: An Annotated Bibliography*, Teachers College Press, Columbia University, New York, 1966.

Kent Halstead

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[5] Reaping a mixed bag of rewards, bibliographers will appreciate Elliott Coues' comments. He was for a decade (1878-88) obsessed with bibliography and proposed to write a *Universal Bibliography of Ornithology*. Only four installments were ever published, and even this effort is extraordinary. Of this period he wrote:

> "I think I never did anything else in my life which brought me such hearty praise . . . from ornithologists who knew that bibliography was a necessary nuisance and a horrible drudgery that no mere drudge could perform. It takes a sort of inspired idiot to be a good bibliographer, and his inspiration is as dangerous a gift as the appetite of the gambler or dipsomaniac . . . Perhaps it was lucky for me that I was forcibly divorced from my bibliographic mania; at any rate, years have cured me from the habit, and I shall never be spellbound in that way."

SPECIAL REQUEST

Although this first edition is intended to be complete and accurate, it is not. Library searches by a few experts, however thorough, cannot possibly provide the comprehensive coverage and collective evaluation required. Additional information from the research and professional education community is necessary. Your participation, in the areas outlined below, will ensure that the high level of confidence sought for the bibliography is obtained. Please respond directly to the associate editors involved. Their addresses and telephone numbers begin on page xxiii.

***What works do you feel meet the selection criteria and nominate for inclusion? (Candidate material may be older volumes and soon-to-be published works, as well as new editions. To facilitate evaluation and entry, authors should provide copies of nominated works and draft annotations.)

***What existing entries lack the necessary value and should be reviewed for possible exclusion?

***What improvements can be made in annotation? (Authors in particular are encouraged to send revisions and/or extensions to assist in properly annotating their works.)

***What changes in the taxonomy of topics and subtopics do you recommend?

Publication of Volume I was delayed a year by printing problems. Updating was not possible within the framework of the project. The associate editors had submitted current material and are not responsible for failure of the bibliography to achieve the timeliness hoped for.

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16 STUDENT CHARACTERISTICS AND DEVELOPMENT

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17 STUDENT FINANCIAL ASSISTANCE

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18 WORK AND EDUCATION

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Classification System

SUBJECT—*Higher education* comprises the activities, organizations and programs, resources, and corporate knowledge of colleges and universities and proprietary schools, together with the associated state and national organizations and Federal agencies serving those institutions.

VOLUME I—Topics generally studied in an aggregate universe or collective whole at the state or national level—a macro approach.

VOLUME II—Topics generally studied in the context and from the perspective of the individual institution or campus—a micro approach.

NOTE: Volumes I and II are *not* exclusive in their approaches; continuity and completeness of subject matter are primary objectives for every topic.

VOLUME I

1: COMPARATIVE NATIONAL SYSTEMS

2: DEMOGRAPHY
- 1.0 Social Demand
  - 1.1 General
  - 1.2 Population Size, Composition, Growth, and Migration
- 2.0 Sectoral and Institutional Structure and Performance
  - 2.1 Demographic Structure of Faculties
  - 2.2 Sectoral Efficiency and Planning

3: ECONOMICS
- 1.0 Incentives and Student Behavior
  - 1.1 Effects of Prices of Educational Services
  - 1.2 Effects of Labor Market Variables
- 2.0 Incentives and Faculty and Institutions
  - 2.1 Interactions Between Institutions and Students
  - 2.2 Measures of Existing Incentives on Faculty
  - 2.3 Issues in Altering Incentives on Faculty and Institutions
- 3.0 Incentives and Public and Private Funders
  - 3.1 Interactions Between Public and Private Funding
  - 3.2 Tax Policy and Donor Behavior
- 4.0 Economic Impact of Higher Education on Students
- 5.0 Incidence of Benefits and Costs of Educational Subsidies

4: EDUCATIONAL OPPORTUNITY
- 1.0 General Issues
- 2.0 Adults
- 3.0 Ethnic Minorities
- 4.0 Handicapped
- 5.0 Underprepared Students
- 6.0 Women

5: FINANCE
- 1.0 General
- 2.0 Federal Role
- 3.0 State Role
- 4.0 Studies of Higher Education Segments
  - 4.1 Graduate Education
  - 4.2 Medical Education
  - 4.3 Private Colleges and Universities
  - 4.4 Community Colleges
- 5.0 Financial Condition of Institutions
- 6.0 Data Sources

6: GOVERNANCE AND COORDINATION
- 1.0 General
- 2.0 State Role
- 3.0 Trusteeship
- 4.0 Politics of Higher Education
- 5.0 Descriptions of Coordinating and Governing Arrangements

7: HISTORY
- 1.0 General
- 2.0 Institutional Histories
- 3.0 Admissions, Articulation, Secondary Schooling
- 4.0 Students
- 5.0 Curriculum
- 6.0 Biography and Autobiography
- 7.0 Learning and Scholarship

8: INDEPENDENT HIGHER EDUCATION
- 1.0 The State and Federal Roles
- 2.0 Philosophical Questions and Policy Options

9. INSTITUTIONAL ROLE AND MISSION
- 1.0 Differential Roles
  - 1.1 Institutional Purposes
  - 1.2 Classification of Institutional Roles
  - 1.3 Profiles of Institutional Types
  - 1.4 Planning Distinctive Missions
- 2.0 Public Interest
- 3.0 Need for Institutions
- 4.0 Program Review

10: MANAGEMENT—QUANTITATIVE APPROACHES
- 1.0 Critique and Evaluation
- 2.0 Foundations
  - 2.1 Dictionaries and Glossaries
  - 2.2 Measures, Structures, and Procedures
- 3.0 Analysis

11: PHILOSOPHY
- 1.0 Current Status of Professional Philosophy of Education in America
- 2.0 Aims and Purposes of Higher Education
  - 2.1 The University and the College
  - 2.2 Prospects for Liberal and General Education
- 3.0 Organization and Governance of Higher Education
  - 3.1 The Educational System and Its Control
  - 3.2 Academic Freedom: The Rights of Teachers and Students
- 4.0 Educational Policy
- 5.0 Experiential Learning

12: POLICY AND GENERAL REFERENCE
- 1.0 Issues and Policy Guidance
  - 1.1 General
  - 1.2 State Role
  - 1.3 Federal Role
- 2.0 Comprehensive Handbooks
- 3.0 Change, Trends, and Forecasts
- 4.0 Reference
  - 4.1 Statistics and Information
  - 4.2 Bibliography
  - 4.3 Directory
  - 4.4 Data and Information Sources and Services

13: PRODUCTIVITY AND COST-BENEFIT ANALYSIS
- 1.0 Outcomes
  - 1.1 Empirical Studies
  - 1.2 Recommendations
  - 1.3 Methodology
- 2.0 Costs
  - 2.1 Empirical Studies
  - 2.2 Recommendations
  - 2.3 Methodology
- 3.0 Cost/Outcome Relationships
  - 3.1 Empirical Studies
  - 3.2 Recommendations
  - 3.3 Methodology

14: RESEARCH AND RESEARCH ADMINISTRATION
- 1.0 Institutional Management for Research
- 2.0 National Research Policy, Resources, and Data
- 3.0 University-Government-Industry Relationships in Research

15: RESOURCE ALLOCATION AND BUDGETING
- 1.0 Budgetary Theory and Practice
  - 1.1 General
  - 1.2 State Budgetary Process
  - 1.3 Federal Budgetary Process
- 2.0 Formula Budgeting
- 4.0 Zero-Based Budgeting

16: STUDENT CHARACTERISTICS AND DEVELOPMENT
- 1.0 Development Studies
    - 1.1 Impact of Institutional Characteristics
    - 1.2 Impact of Individual Institutions
    - 1.3 General Development Studies
- 2.0 Descriptive Studies
- 3.0 Data Sources

17: STUDENT FINANCIAL ASSISTANCE
- 1.0 Governmental Policies
- 2.0 Student Loans
- 3.0 Governance, Administration, and Delivery of Student Aid
- 4.0 Special Types and Recipients of Aid
- 5.0 Statistical Studies and References
- 6.0 Cross-National Comparisons

18: WORK AND EDUCATION
- 1.0 Career Development
- 2.0 Career Education
- 3.0 Job-Related Outcomes of Higher Education
- 4.0 The Credentialing View
- 5.0 The Job Market for Ph.D.'s
- 6.0 Forecasting
- 7.0 Basic Data Sources

VOLUME II

19: ADMISSION/ARTICULATION/RETENTION
- 1.0 Admission and Articulation
- 2.0 Retention/Attrition

20: BUSINESS ADMINISTRATION
- 1.0 Accounting
    - 1.1 General
    - 1.2 Financial Reporting
    - 1.3 Auditing
    - 1.4 Grants and Contracts
    - 1.5 Student Aid

- 2.0 Administration
  - 2.1 General
  - 2.2 Personal
  - 2.3 Legal
- 3.0 Asset Management
  - 3.1 Investment Management
  - 3.2 Purchasing
  - 3.3 Risk Management and Insurance

21: CAMPUS AND BUILDING PLANNING
- 1.0 Planning Issues and Resource Allocation
- 2.0 Environmental Issues
- 3.0 Facility Types

22: COMMUNITY COLLEGES
- 1.0 Institutional Characteristics
  - 1.1 Role, Mission, Philosophy
  - 1.2 Governance and Administration
  - 1.3 Finance
- 2.0 Personnel
  - 2.1 Staff Characteristics and Preparation
  - 2.2 Students
- 3.0 Functions
  - 3.1 Academic Transfer and Occupational Education
  - 3.2 Student Development
  - 3.3 Community and Continuing Education

23: COMPUTING SERVICES
- 1.0 Role and Scope of Computing
- 2.0 Organizing and Managing the Computer Function
  - 2.1 Management Issues
  - 2.2 Allocation and Pricing
  - 2.3 Networks
- 3.0 Use of Computers in Instruction
- 4.0 Use of Computers in Research
- 5.0 Administrative and Library Data Processing

24: CURRICULUM
1.0 General Overviews of College Influences on Student Learning
    1.1 General Syntheses of Research and Theory
    1.2 Special Focus and Followup Studies
2.0 Curricular Design and Course Content
    2.1 Historical Reviews
    2.2 Professional and Vocational Preparation
    2.3 Curricular Change and Reform
3.0 The Hidden Curriculum and the Extracurriculums
    3.1 The Hidden Curriculum
    3.2 The Extracurriculums

25: EDUCATIONAL COMMUNICATION AND TECHNOLOGY
1.0 Theory, Research, and Issues
2.0 Trends
3.0 Instructional Design and Development
4.0 Computerization and Automation of Instruction
5.0 Standards and Guidelines
6.0 Data Sources

26: FACULTY
1.0 Characteristics
2.0 Staffing
    2.1 Supply and Demand
    2.2 Reductions and Retrenchments
    2.3 Tenure
    2.4 Retirement
    2.5 Discrimination and Affirmative Action
3.0 Performance
    3.1 Assessment and Rewards
    3.2 Professional Development
4.0 Governance
    4.1 Participation in Decisionmaking
    4.2 Legal Issues
    4.3 Impact of Unionization

27: HEALTH SCIENCE EDUCATION

- 1.0 General
- 2.0 The Disciplines
  - 2.1 Medicine
  - 2.2 Dentistry
  - 2.3 Nursing
  - 2.4 Pharmacy
  - 2.5 Allied Health Professions
- 3.0 Health Manpower Issues
- 4.0 Management and Economics
- 5.0 Administration of the Academic Health Center

28: INSTITUTIONAL ADVANCEMENT (PUBLIC AFFAIRS)

- 1.0 Institutional Advancement Program: Integrated Approach
  - 1.1 Philosophy, Organization, and Administration
  - 1.2 Role of the President
- 2.0 Public Relations
  - 2.1 Managing the Public Relations Program
  - 2.2 Internal Communication
  - 2.3 External/Media Relations and Special Events
- 3.0 Fundraising (Development)
  - 3.1 General/Organization and Administration
  - 3.2 Annual Giving
  - 3.3 Capital Campaigns
  - 3.4 Deferred or Planned Giving
  - 3.5 Foundation Relations/Corporate Support
- 4.0 Alumni Relations
  - 4.1 General
  - 4.2 The Profession
  - 4.3 Organization and Administration
  - 4.4 Services
- 5.0 Government Relations
  - 5.1 General/Organization and Administration
  - 5.2 State and Local Government Relations
  - 5.3 Federal Government Relations

- 6.0 Communications
    - 6.1 General
    - 6.2 Periodic and Non-Periodic Publications
    - 6.3 Direct Mail
    - 6.4 Audio-Visual Communications

29: INSTITUTIONAL FINANCING AND BUDGETING
- 1.0 Financing
    - 1.1 Economics and Financing
    - 1.2 Financing Sources
    - 1.3 Program Costs
- 2.0 Budgeting
    - 2.1 The Budget
    - 2.2 Budgeting Processes and Systems
    - 2.3 Resource Allocation and Reallocation
    - 2.4 Efficiency and Effectiveness
    - 2.5 Methodology: Computer-Based Modeling and Planning Strategies

30: INSTITUTIONAL MANAGEMENT
- 1.0 Overview
- 2.0 Staffing
- 3.0 Directing and Controlling

31: INSTITUTIONAL PLANNING, STUDIES, AND ANALYSES
- 1.0 Institutional Planning—A General/Overall Process
- 2.0 Institutional Goals
- 3.0 Institutional Analysis and Information for Planning

32: LEADERSHIP AND THE PRESIDENCY
- 1.0 Concepts in Organizational Leadership
- 2.0 The Presidency As Influenced by Institutional Environment, Personal Qualities, and Styles
- 3.0 Leadership in Action

33: LIBRARIES
- 1.0 Administrative Systems and Procedures
- 2.0 Management of Human Resources
- 3.0 Organizational Change
- 4.0 Interinstitutional Cooperation
- 5.0 Collection Management
- 6.0 Public Service
- 7.0 Bibliographic Control

34: LIFELONG LEARNING
- 1.0 General
- 2.0 Adult Development and Learning
- 3.0 Planning and Management
- 4.0 Teaching and Learning
- 5.0 Crediting Noncollegiate Learning
- 6.0 Counseling and Information Services
- 7.0 Information Sources for Planners

35: PRIVATE CAREER SCHOOLS
- 1.0 Comparison with Public/Nonprofits
- 2.0 State Agency Reports
- 3.0 The Institutions and Their Students
- 4.0 Operating a Private Career School
- 5.0 General

36: SPACE MANAGEMENT AND PROJECTION
- 1.0 Data Collection and Analysis
    - 1.1 General
    - 1.2 Inventory
    - 1.3 Utilization
    - 1.4 Projection
    - 1.5 Statistical Information
- 2.0 Specific Space Management Considerations
    - 2.1 Energy Conservation
    - 2.2 Access for Handicapped
    - 2.3 Obsolescence Studies
    - 2.4 Building Costs, Life Costs, and Maintenance

37: STUDENT AFFAIRS
    1.0 General Issues
    2.0 Career Development and Counseling
    3.0 Student Residential Life
    4.0 Student Rights
    5.0 Student Health Services
    6.0 Student Athletics

38: TEACHING AND LEARNING
    1.0 Teaching
    2.0 Learning
    3.0 Students and Teachers
    4.0 Instructional Support and Development

1

Comparative National Systems

Burton R. Clark

Each country organizes its national system of higher education differently. The basic educational and governmental structures determine the degree of planning, who plans and for what organization, and where the power is located to turn plans into policies and then implement the policies. Some countries have a single nationalized system with one sector; others have a single system with multiple sectors. In still other cases, there are divisions of educational authority between national and provincial/state levels of government; control in this kind of structure commonly originates at the provincial level, although national bodies have gained power in recent decades. Lastly, some systems have major private sectors as well as public ones.

Planning is shaped accordingly, taking place where the primary coordinating power is located. This means that planning may be national and unitary, as in Sweden; national and plural, as in France; essentially provincial, as in Canada; or even extensively fragmented, as in the United States. In the United States we have a mixture of autonomous private control, state control, and now even some Federal control in the form of various routes of departmental and bureaucratic funding.

The major components of this topic are those studies that illuminate the similarities and differences among the basic organizational forms of various countries, and those that show directly, or suggest indirectly, how the primary structures shape planning. The volumes annotated review the effectiveness of recent trends and reforms in higher education among various nations. They also examine how such factors as market behavior, political climate, and the distribution of power affect higher education planning.

Understanding other national structures can give us fresh perspectives on our own planning problems, capabilities, and limitations. Broad studies of national systems are more useful than those of narrow and specific educational plans. Moreover, the few studies of specific plans that are available generally lack contextual detail and a comparative framework. Therefore, most of the selections are national-system studies in which planning is discussed in the context of basic organization.

1:0 Comparative National Systems

1:0/80-1

University and Government in Mexico: Autonomy in an Authoritarian System, Daniel C. Levy, 173 pp. (Praeger Publishers, New York).

Recent literature on educational policymaking indicates a cross-national trend toward greater government control of univeristies. This work focuses on the degree of control in Mexico, a country normally studied by political scientists as a case of authoritarian rule.

Levy, a political scientist, examines several forms of control. Economic control is measured by such factors as the use of allocations as an instrument of control and the attempts of the government to impose tuition-loan schemes. Through an indepth analysis of the financial bargaining processes and using a variety of statistical tests, the author shows limited effects of government financing on university autonomy. Administrative control is measured by such factors as the power to appoint the rector, the territorial integrity of the campus, and the degree of academic freedom.

The author finds, overall, that institutional autonomy is far stronger in Mexico than usually supposed, and not in keeping with the strong hierarchical control suggested by the broad label of authoritarianism. The government and university have established a modus vivendi based on mutual dependence. The government concentrates far more on satisfying demands than on imposing its wishes. Hence, in the author's judgment, a "reconciliation" model far better approximates Mexican government-university relations than an authoritarian model. Planning is affected accordingly, subject to the established powers of the universities, the rigidities and limited capabilities of governmental bureaus, and the overwhelming weight of continuing budgetary commitments of higher education. The political economy of Mexican higher education, Levy concludes, makes policy largely a response to demands and confines planning to incremental, marginal decisions.

1:0/80-2

Process and Structure in Higher Education, Tony Becher and Maurice Kogan, 222 pp. (Heinemann Educational Books Ltd., London).

This rigorously systematic effort to give an overview of the British system of higher education attempts to develop a perspective that will clarify basic properties and interconnections of such systems everywhere. The authors explore points of similarity across time in the British system and, hopefully, across national systems—particularly other decentralized ones. They present a model that emphasizes four structural levels: the individual, the basic unit, the institution, and central authority. They then divide each structural level into two aspects: the normative, which involves the monitoring and maintenance of values; and the operational, which involves carrying out practical tasks. The result is an eight-cell matrix.

After an historical discussion of changes in the British system since 1945, the book takes up the structural levels in four successive chapters, using the analytical distinction between the normative and the operational. In the main, the authors see the normative driving the operational. In a chapter on initiating and adapting to change, they portray change at all levels primarily coming about from altered values and orientations, thereby putting the normative and the operational out of phase with one another.

The authors draw the fascinating conclusion, widely overlooked in American thinking, that whatever the initial pressures for change—originating outside or inside the system—the crucial processes of change are localized and specific. They also emphasize the great resilience of existing structural constraints and the difficulties of implementing planned changes from the top down. They conclude: "The main constraints on change are social, not psychological: they depend more on the way the system operates than on the particular stand that its individual members choose to take."

1:0/80-3

The Politics of Higher Education in a Comparative Perspective: France, Sweden, United Kingdom, Rune Premfors, 260 pp. (Department of Political Science, University of Stockholm, Stockholm, Sweden).

Emphasizing developments during the 1960's and 1970's, this book compares the national politics of higher education in France, Sweden, and the United Kingdom. It seeks to build on and bring together the two different research traditions of comparative public policy (mainly practiced by political scientists) and comparative higher education (a younger and more interdisciplinary field).

The five central empirical chapters first consider the importance of higher education in the political agendas of the three countries, and then investigate four policy dimensions: governance, size, structure, and access. In each area, Premfors analyzes the contents of policy, its determinants, and its implementation and effects. The concluding chapter, "Towards a Dynamic View of Higher Education Politics," generalizes about the relation of policy to power, ideology and culture, economics and demographics, previous policy, organization, and markets.

The study is outstanding in its combination of theory, close empirical investigation of the case-study sort, cross-national comparison, and significant conclusions for theory and practice. The concluding chapter alone "is worth the price of admission," shot through with one insightful comment after another. For example, Premfors shows the great constraint of past and present policy on new policy, dramatizing for the higher education sector the idea of "policy inheritances." The interdependence between different policy measures is increasing rapidly in modern states, stemming from both the absolute growth of the public sector and the increasing organizational density of sectors within it. In short, to paraphrase Aaron Wildavsky, policy increasingly becomes its own cause.

As a second and related example, Premfors' research is convincing also on the determination of central policymaking by the nature of academic organization, particularly when work is organized around many specialized disciplines. Here he links this concept effectively to the organizational concepts developed in the last decade by James C. March, J. Victor Baldridge, Burton R. Clark, and others. Premfors also points out that while economic and demographic developments may be said to affect policy, they typically do so in an indirect and mediated fashion: they work their way through the funnels of politics and ideological trends and are reshaped according to responses dictated by existing policy and organization.

Anyone who studies closely this sophisticated published Ph.D. dissertation will come out considerably smarter about higher education politics and policy in his or her own country. The book is exciting testimony on the kinds of knowledge and insight that can now be added by systematic comparativists in the realm of higher education.

1:0/79-1

Changes in the Japanese University: A Comparative Perspective, William K. Cummings, Ikuo Amano, and Kazuyuki Kitamura, eds., 261 pp. (Praeger Publishers, New York).

This volume is a revised and extended collection of papers originally presented at a 1976 conference in Tokyo. Its 12 chapters cover a range of topics including the governance, organization, and performance of Japanese higher education: historical development, problems of expansion and equality, finance, graduate employment, internal university structure, nature of the Japanese academic profession (including its productivity), the student movement, the internationalizing of Japanese higher education (involving the crucial problem of "westernization"), and comparison of the Japanese with other major national systems.

In addition to the foreword by Michio Nagai, the best-known writer on the Japanese system, the articles were prepared by such prominent Japanese experts as Ikuo Amano, Tetsuya Kobayashi, Kazuyuki Kitamura, Michiya Shimbori, and Morikazu Ushiogi, and by several American observers, including William K. Cummings. Chapters of special interest are one by Amano, on the historical formation of the modern Japanese system, which reveals the roots of present day diversity, another by Ushiogi, which makes the point, more clearly than has been made elsewhere, that the numerous graduates of mass higher education cannot all enter the positions traditionally considered appropriate but will and must enter also into clerical, sales, and manual jobs. A concluding chapter by Burton R. Clark compares the differentiation and coordination of the Japanese system with other major national systems.

The mixture of European, American, and uniquely Japanese characteristics, the rapid move into more accessible higher education, the diversity of public and private institutions, and the problems of governmental finance, supervision, and planning, all make the Japanese system fascinating. This book, the best statement in English on the Japanese system, provides much information and some insight that aid in bringing this major system into cross-national comparisons that, among other returns, give us fresh perspectives on higher education in the United States.

1:0/79-2

Funding Higher Education: A Six-Nation Analysis, Lyman A. Glenny, ed. 235 pp. (Praeger Publishers, New York).

This book describes and compares practices and technologies for allocating funds to higher education institutions in France, Sweden, Italy, Spain, Greece, and the United States, and suggests some reasons for the similarities and differences.

The book is intended for laypersons as well as educational planners and policymakers around the world. The five European case studies were prepared by native scholars—two by political scientists, two by economists, and one by a sociologist—roughly following a common outline prepared by Glenny and based on his earlier work on the United States. An introductory chapter by Glenny defines the task, and his two concluding chapters take up the wider political and social settings for budget formulation and the influences exerted by students and faculty, such as student aspirations and the ways in which faculty are paid, ranked, and given job security.

Each case study, distinct and interesting, can be read for its own value. But the most rewarding comments, especially for Americans, are found in Glenny's chapters. For example, he early states that "much of the money going to disciplines, chairs, or departments within institutions in the European countries bypasses the institution as an administrative unit. Rather, funds from the central state agencies go directly to professors or to internal units, without considering any institutional position on the subject." The European-type structure also integrates the faculty into the national civil service, thus removing faculty salaries and benefits almost completely from budgetary control. Hence, "what the institutional budget consists of amounts to about twenty percent of the U.S. college or university budget, what in the United States is called supplies and equipment, buildings, grounds, and maintenance"—an astonishing difference.

There is ample reason to think that this general European structure greatly hinders the creation of new centers of excellence and reduces the leeway and incentive for institutions to improve themselves. These major differences in outcomes indicate anew how much the basic structure of a national system influences its processes and development.

1:0/79-3

Social Origins of Educational Systems, Margaret S. Archer, 815 pp. (Sage Publications Ltd., London).

This huge volume is one of the major contributions of the last decade to the sociology of education. Its aim is "to provide a theoretical framework which will account for the major characteristics of national education and the principal changes that such systems have undergone." Toward that end, Archer uses current sociological theory to develop her own way of thinking about educational systems. Using considerable historical detail, she compares the educational systems of four countries—England, Denmark, France, and Russia—in order to learn how modern organized systems emerged in those cases where emergence was not the result of foreign domination.

Part One is devoted to this effort, focusing on why England and Denmark developed decentralized systems while France and Russia went the route of centralization. Part Two examines the separate question of how these systems, once firmly in place, have maintained themselves and changed down to the present time.

Archer, a macro-organizational sociologist, believes that existing social structures and related interactions guide change, first in society in general through the educational system and then by solidifying the system itself. In the latter respect, the basic principle is simple: "Once a given form of education exists it exerts an influence on future educational change." She believes that by studying the extent and form of that influence, we arrive at a systematic way of approaching change and connecting it to basic features of a system.

The book is overwritten, muddied with long detours in sociological theorizing, and difficult to penetrate. (One chapter is over 200 pages long and has 381 footnotes!) Also, the volume is about educational systems generally and not higher education per se. But it is worth some time and thought by higher education administrators and other quick readers, as well as by scholars who may be able to devote months to its mastery. Crucial are the sections in the last chapter devoted to "stop-go" change in centralized systems and incremental change in decentralized systems. Having detected incremental adjustment in England and Denmark, one wonders how much more incrementalism she would have found in the United States.

Archer concludes on a note of nonconvergence: once in place, centralized systems remain centralized, and decentralized systems tend to remain decentralized. This conclusion may provide some cheer to those Americans worried about the increasing centralization of our own system(s) at state and national levels.

1:0/78-1

12 Systems of Higher Education: 6 Decisive Issues, Clark Kerr, John D. Millett, Burton R. Clark, Brian MacArthur, and Howard R. Bown, 181 pp. (International Council for Educational Development, New York).

This book developed as part of the study of national systems of higher education in 12 countries carried out between 1975 and 1977 by the International Council for Educational Development. Based on reports on France, England, West Germany, Sweden, Poland, Canada, the United States, Mexico, Japan, Thailand, Australia, and Iran, the present volume was designed to cut across and summarize the studies. Its six essays by different authors compare national systems on basic characteristics: goals (Clark Kerr); planning and management (John D. Millett); coordination (Burton R. Clark); flexibility and innovation (Brian MacArthur); measurements of efficiency (Howard R. Bowen); and comparative effectiveness (Clark Kerr).

The chapters by Millett and Clark are most relevant to planning. Millett groups countries in several dichotomies—monolithic or pluralistic party systems, unitary or Federal government structures, developing or developed economies—as a way of explaining differences observed in the planning and management of their higher education systems. After discussing the structures found in each country, he concludes that nowhere among the 12 countries has planning "been particularly outstanding in the years since 1945."

Clark places the 12 countries in four types of national educational structures, based on unity of control and form. He then suggests four basic pathways of coordination: the bureaucratic, the political, the professional, and the market. He concludes that coordination is affected everywhere by market interaction as well as by state authority, and by senior professors as well as by state officials, and that the task of planning is to understand the contribution of each of the major forms of coordination and to encourage a fruitful balance among them.

1:0/78-2

Academic Power: Patterns of Authority in Seven National Systems of Higher Education, John H. Van de Graaff, Burton R. Clark, Dorotea Furth, Dietrich Goldschmidt, and Donald Wheeler, 217 pp. (Praeger Publishers, New York).

This book, a product of early work done by the Higher Education Research Group at Yale, analyzes how power is distributed within the national systems of higher education of West Germany, Italy, France, Sweden, England, the United States, and Japan. The authors identify six levels of organization: the lowest operating unit (department or chair); the intermediate campus unit (faculty, school, college); the university or independent college as a whole; the multi-campus university or college system; the state level; and the national level.

Authority in different areas of decisionmaking, such as personnel and finance, is located by level, and national patterns of authority structure are identified—e.g., a European mode that has concentrated power historically at the bottom in the Chair and at the top in the Ministry, with weak campus administration, and an American mode in which trustee and administrative authority has produced relatively strong campus-level integration. While planning historically has been weak in all seven systems in the last decade, it has emerged as a strong force in Sweden due to the country's small size, its cultural homogeneity, and the planning capability patiently built up in other sectors of government during the last four decades.

The authors conclude that recent reforms in higher education (up to 1975) have strengthened the powers primarily of central and higher levels of organization. In two concluding chapters, Goldschmidt discusses unique features of the national patterns and probes the effects of recent trends and reforms, and Clark develops a set of perspectives and concepts that can help guide future cross-national research in the administration and governance of higher education.

1:0/78-3

Systems of Higher Education: France, Alain Bienaymé, 144 pp. (International Council for Educational Development, New York).

Prepared with the financial support and cooperation of the French Government, this report is part of the 12-country study of national systems of higher education carried out between 1975 and 1977 by the International Council for Educational Development. Only pages 24 through 41 bear directly on planning, yet the report merits attention.

Among the large nations of Western Europe, France is *the* planning state; it has attempted to organize higher education as a national system for a century and a half—since the days of Napoleon—and it has used a ministry of education to do so. Rational as well as modern, the French should be able to plan higher education within a democratic state, if anyone can.

But what do we find? First, various *grandes ecoles*—an elite sector separate from the universities—have been sponsored by different ministries, dispersing actual control and making overall coordination extremely difficult. According to the author, recent major reforms—including the separation of higher education from the old ministry into a ministry of its own—have "in no way" dealt with the ingrained dispersal of control. Second, "France," the author observes, "is also subject to the rule usually noted in countries which have a minister of higher education: the millions of pupils and parents in elementary and secondary schools and the hundreds of thousands of employees and teachers give the minister of education a political weight which provides the primary and secondary schools with a decisive advantage over the universities." Third, planning is bogged down in a struggle for power between central officials and university personnel and students. The plans of central staff are almost automatically resisted, compromised, and severely attenuated, as in the case of the 1976 regulations that were intended to reduce graduate unemployment and make the universities more relevant to the job market. The new regulations had the effect of provoking "unexpected hostility from a combined force of teachers and students" that led to at least month-long strikes in over 50 universities. Fourth, while post-1968 reforms have proclaimed greater autonomy for the universities, Bienayme claims that "we can advance with some confidence the hypothesis that the real power of the central administration (over the universities) has been strengthened, and within it, that of the director of financial affairs." Finally, public and political respect for the universities is at a low ebb, and the universities are "pervaded by a feeling of gloom."

There is little that planners themselves can do to control the flow of events, despite the established powers and competencies of central government. The politics of university-state relations basically determine what is done.

1:0/78-4

Systems of Higher Education: Canada, Edward Sheffield, Duncan D. Campbell, Jeffrey Holmes, B.B. Kymlicka, and James H. Whitelaw, 219 pp. (International Council for Educational Development, New York).

This is another of the 12 studies of national systems of higher education carried out by investigators in their home countries between 1975 and 1977 as part of a general study organized by the International Council for Educational Development. The book contains four chapters prepared by different experts covering Canada's 10 provincial systems—the Atlantic provinces (Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick), Quebec, Ontario, and the Western provinces (Manitoba, Saskatchewan, Alberta, and British Columbia—and introductory and concluding chapters by Edward Sheffield. Planning at provincial and regional levels is discussed in each chapter.

Sheffield shows the extent to which the Canadians have reversed the trend toward the domination of education by the national government (so evident elsewhere in the world and found in Canada during the period of direct federal aid to higher education between 1951 and 1976). Federal aid is now quite indirect: Canada has entered "an era of provincial systems." The "state of federal-provincial relations" is the key, making the central government much less influential in higher education than its potential power would suggest. At the provincial level, the organization of higher education varies considerably, Quebec and Alberta being "most characterized by the planning process."

In Sheffield's judgment, "planning for higher education in Canada is inadequate at all levels—institutional, provincial, national. Such information systems as exist tend to be both complex and burdensome. Projections, e.g., of enrollment, are undertaken spasmodically rather than regularly. Too much planning is for the local scene and the immediate future." He concludes, however, that decentralization has enabled Canadian higher education to respond to regional needs, and, in spite of structural shortcomings, the overall enterprise "serves Canada tolerably well."

1:0/78-5

Systems of Higher Education, Sweden, Rune Premfors and Bertil Östergren, 208 pp. (International Council for Educational Development, New York).

This study, prepared with the support of the Swedish National Board of Universities and Colleges, is part of the 12-country study of national systems of higher education carried out between 1975 and 1977 by the International Council for Educational Development. The report is organized into three topics: design and goals of the Swedish system, with chapters on background, structure, and goals; management of the system, with chapters on planning, administration, and autonomy; and effectiveness, with chapters on social effectiveness, innovative effectiveness, and efficiency.

Of all the systems in Western Europe, Sweden's small, nationally unified system of higher education has perhaps undergone the most change since 1960—especially planned change. Sweden has long been oriented to democratic planning; the term planning, the authors point out, has positive connotations, and over the decades, government bureaus have evolved a planning capacity. Ministerial planning is very closely linked to budgetary work and to the political process. Deep-probing and future-oriented policy analysis is largely delegated to ad hoc commissions and to central agencies that operate at a second level beneath the cabinet ministries. Numerous commissions, specific and comprehensive, have appeared in the field of education, and they have "adhered to a tradition in educational policy-making in Sweden [of a] close relationship between educational planners and educational research." In the case of the famous "U68" commission, which covered all postsecondary education, almost 200 experts were involved in its work during its existence between 1968 and 1974. The specific agency responsible for higher education, recently renamed the National Board of University and Colleges, is staffed by civil servants and operates much as do parts of the national ministry of education in other countries. Its work involves "rolling planning," a continuously renewed and revised planning for the ensuing 3 or 5 years. With all this going on at the top of the system, the authors point that "there has until recently been few things to plan on the part of institutions: central regulations have been too tight to permit the kind of decisionmaking competence which makes local planning meaningful."

The most notable point in this useful study is the authors' emphasis on the growing control of bureaucrats, politicians, and outside interest groups, in contrast to the influence of academics. High-level civil servants have become more influential in more areas of decisionmaking; politicians enter the decisionmaking bodies increasingly at regional and local as well as national levels; and, strikingly, organized interest groups, especially those of labor and business, are increasingly included through formal representation in decisionmaking bodies—a form of democratic corporatism. And corporatism is becoming the Swedish version of lay control. Thus, planning is increasingly carried out in the context of intersecting bureaucratic, political, and corporatist relations.

1:0/78-6

Systems of Higher Education: Australia, Bruce Williams, 93 pp. (International Council for Educational Development, New York).

This study, by the Vice-Chancellor (chief officer) of the University of Sydney, is part of the 12-country study of national systems of higher education carried out between 1975 and 1977 by the International Council for Educational Development. The report is organized into five topics: the design of the Australian system; its objectives; federal and state influences; planning and management; and effectiveness. The author describes the division of "tertiary education" in Australia into three sectors (universities, colleges of advanced education, and colleges of technical and further education) and the division of powers between the national government and the six states. Constitutionally and historically, control has rested with the states, but on the basis of the power to make financial grants to the states, the Commonwealth government has greatly increased its role. In 1977 it contributed 80 percent of the budget.

The author's review of the growth of system planning at state and national levels indicates considerable variation at the state level, a great amount of change occurring in recent years at the national level, and a current picture of unsettled arrangements. In contrast to continental Europe and the United States, Australia uses commissions abundantly in system planning and coordination, borrowing this mode from the University Grants Committee in Great Britain. In Australia, commissions came into existence at the national level for all three sectors of tertiary education; and boards, designed to play a similar buffer role between government and institutions, were created at the state level for the first two sectors. The planning process has become intricate, involving political and bureaucratic officials at the two levels of government, the members and staffs of the many commissions, and the institutional representatives. The effort to clear up confusion and to provide planned coordination led in 1977 to a new Tertiary Education Commission at the national level, with the former national commissions of the three sectors redesignated as subordinate councils.

In a short chapter on "Planning and Management," the author lists a number of interesting features of Australian planning: the use of rolling triennial programming; the distinction between a real plan and a financial plan; and the systematic visitation of commissions to institutions. Most interesting are the traditions and structures of government and education that have fathered the procedures, given them meaning, and made them effective. The author points out that Australia has "an open form of planning that [has] depended for its continued success on committees of inquiry to consider major issues and the publication of reports." The institutions typically feel that they are under a "form of iterative planing in which they are closely involved."

The Australian framework for planning is one of relatively small-scale organization, close contact among interested parties, and a tradition that independent inquiry by special committee will precede major ministerial decisions.

1:0/78-7

Systems of Higher Education: Japan, Katsuya Narita, 142 pp. (International Council for Educational Development, New York).

Katsuya Narita is a director of research in the Japanese National Institute for Educational Research. His report was sponsored by the Japanese government and is part of the 12-country study of national systems of higher education carried out between 1975 and 1977 by the International Council for Educational Development. The three major sections of the report describe the historical background and present structure of the Japanese system, its government and management (including policies for planning), and its effectiveness.

The author presents many of the difficulties of planning in the Japanese system, which is large and diverse. It is made up of private as well as public institutions, municipally supported as well as nationally supported institutions, and community and 4-year colleges as well as universities. Whereas the United States moved into mass higher education largely by expanding the public sectors, Japan did so by expanding the private sector. Seventy-five percent of its institutions are now private and encompass 77 percent of the students. Narita says flatly: "The rapid development of mass higher education in modern Japan would not have been possible without the private sector." The public sector, dominated by the Universities of Tokyo and Kyoto, has been selective and rigid; modeled on the European mode of Chair (instead of Department) organization; it is devoted to the ideals and standards of the research university. Private institutions, on the other hand, are the dynamic element in expansion by operating in a market of high consumer demand.

The author discusses the efforts of Japanese authorities since the late 1960's to plan and control the general direction of this massive system and to raise standards in the private sector. With these ends in view, various major committees have been at work to devise a national master plan: governmental organs have been reorganized and major laws enacted, the most important of which provide increasing government subsidies for private institutions toward a target of contributing 50 percent of operating costs. With this increased government aid have come guidelines and rules on what these institutions can and cannot do. Interestingly, the author points out that the government has established three broad planning categories: objectives that must be "achieved as governmental obligations"; those that should be "induced by the government"; and those that should be "initiated freely."

The author maintains that the results of recent efforts to increase planned coordination are still unclear since these results have been piecemeal and incremental, rather than global. Institutional initiation and imitation have remained more powerful than centrally controlled change. Institutions *know* that their reputations depend on fidelity to certain traditional course arrangements and standards. "Here lies the main reason behind the uniformity and rigidity in curricular structure which is characteristic of the Japanese system of higher education."

1:0/78-8

Systems of Higher Education: Federal Republic of Germany, Hansgert Peisert and Gerhild Framhein, 204 pp. (International Council for Educational Development, New York).

This thorough report, prepared as part of the 1975-77 12-country study by the International Council for Educational Development, is the best study in English of higher education in West Germany. The German system is federal in general structure and hence is sometimes grouped with the Canadian, Australian, and American federal systems. But as a result of the leading role that the German system played worldwide in the nineteenth and early twentieth centuries in integrating teaching and research in the research-centered university, it has had a powerful integrative tradition that deeply affects thought within various institutions and individual states. The Länder (the states) are thereby more integrated than the American states, even while having quite different political and cultural orientation. Overall, the German system is quite different from the American; for example, there are no land-grant universities or private universities, and all the universities have extensive self-administration by the few professors who hold chairs.

Institutional, state, and national planning has gradually gained in importance in the West German system during the last decade and a half, culminating in a national 1977 Frame Law that makes it obligatory for the Länder to have comprehensive plans. The national government has steadily increased its role, with uniform nationwide development in mind. It seeks a "vertical equalization" of financial burdens as way of helping state-level governments finance higher education. It has also helped to bring about a partial "horizontal financial equalization between the Länder which requires the financially strong Länder to make equalization payments to those Länder that are financially weak." An even sharper indicator of the growing nationalization is a 1972 decision by the Federal Constitutional Court on admission of students throughout the country, which led to the creation of a central agency for student placement. This action has placed secondary schools under great pressure to equalize instruction, grading, and degree requirements, "a situation that is to be achieved through the introduction of so-called 'norm books'." Peisert and Framhein note that this represents "a centralistic and rigid intervention in the structure of curricula of secondary schools which . . . contradicts the federal creed."

West Germany is a good place to study both the positive outcomes and the boomerang effects of new forms of central allocation and supervision and thereby deepen our understanding of how planning relates to federalism.

1:0/78-9

Elites in French Society: The Politics of Survival, Ezra N. Suleiman, 299 pp. (Princeton University Press, Princeton, N.J.).

As Suleiman states in the Introduction to this outstanding volume, "All societies are governed by elites and every society has some means of producing its elites. But few societies have succeeded in *institutionalizing* their elite-forming mechanism to quite the degree that France has. One needs to demonstrate considerable competence before one can acquire membership in France's elite institutions. But once that competence has been demonstrated at an early age, it is never again called into question."

Where is that competence "demonstrated," and where do we find the central "elite-forming mechanism"? In French higher education, and not in the top universities but within a sector of special colleges known as the *grandes écoles*, some of which exercise extremely sharp selection. Hence this book appropriately centers on these schools.

The first chapter, "State-Created Elites," points out that in France the state forms the nation's elites and has, in fact, formed a structure monopolizing that role. The second chapter, "The Basis of Elite Formation: The Universities vs. The Grandes Écoles," describes the nonelite role of the first sector and the elite role of the second. The third chapter, "The Sanctity of the Grandes Écoles," adds significantly to our knowledge of how one part of a higher education system may profit at the expense of another and still be protected from reform, "democratization," and change. In fact, after the turmoil of post-1968 reform in French higher education, the university sector was further devalued and the key *grandes écoles* made stronger.

Educational structures everywhere accumulate an inertia of their own. This tendency is made worse when the state exerts excessive control over education—a stubborn paradox for those who believe that greater governmental control increases chances for reform and meaningful change. In the French case, the graduates of the elite sector of higher education occupy top posts in government and, increasingly, private industry. They are not about to dismantle *the* mechanism that, in their view, serves the nation so well. So "indispensable" are the *grandes écoles* that even changes in party control of the government do not matter.

Suleiman's research provides fascinating background for thinking about the pros and cons of concentrated selection, training, and placement in higher education. In the French case, efficiency and merit are well-served, equality and diffusion of power are not.

1:0/77-1

Systems of Higher Education: United Kingdom, Tony Becher, Jack Embling, and Maurice Kogan, 158 pp. (International Council for Educational Development, New York).

This important book, written by three eminent British authorities, was prepared as part of the 12-country study of national systems of higher education carried out between 1975 and 1977 by the International Council for Educational Development. The study is organized in three major parts: the structure and purpose of the British system of higher education; the government and management of the system; and the system's effectiveness.

The authors cogently locate planning within the context of the elaborate and subtle structure of British higher education. They state that central departments of education in England and Wales, Scotland, and Northern Ireland are engaged in "a complex set of relationships" with the universities and colleges, "which ultimately add up to a planning function exercised nationally." The drift of power, especially since the mid-1960's, has been toward central bodies, with the central government asserting "its rights to determine higher education policy in response to short-term economic planning administered by the central government departments within the Treasury network."

Of special note has been the changing role of the University Grant Committee (UGC), which from its creation in 1920 to the mid-1960's stood as a free, relatively-autonomous body between the Treasury and the universities. The UGC had provided the world with a model of how academics serving on a "buffer" commission could take government money without coming under regulation by government officials. In the last decade, however, the UGC has been formally placed under the Department of Education and Science (DES). The authors note that the UGC now "has to follow the planning framework established by the DES," and they point to specific avenues along which the DES and the UGC between them have been developing planning norms and regulations.

Recognizing that there is some current political interest in Britain in bringing all institutions of higher education under a single management system, the authors express concern about the possible losses brought about by centralization. They note that an academic system operates on "the principle of preserving the initiatives of its prime academic elements, whether these be schools of study, course teams, or conventional subject departments." The present structure is actually a loose network of small enterprises, each built around a marketable specialty. Therefore, they conclude, it makes more sense to develop a "craft cooperative" approach to accountability rather than to continue "with the uncomfortable business of trying to use the 'large corporation' analogue in a situation where the model, or the subject matter, or both, have to be seriously distorted to achieve anything at all."

1:0/77-2

Innovations and Innovative Processes in Higher Education, Barbro Berg and Bertil Östergren, 157 pp. (National Board of Universities and Colleges, Stockholm, Sweden).

This book is an English translation of the third of four reports on a study of educational planning conducted between 1974 and 1977 by the Office of the Chancellor of the Swedish Universities (reorganized and renamed in 1977 as the National Board of Universities and Colleges). The entire study was intended "as a clinical examination, oriented toward the charting of dysfunctions in governance, planning and organization of higher education, with primary emphasis on two criteria, namely effectiveness and innovation capability."

This particular report on innovation contains two parts: a briefly-reviewed questionnaire study of educational changes and a group of seven case studies of processes of innovation. The authors attempt to integrate their case studies into a theoretical framework by drawing particularly on the field theory of Kurt Lewin.

From the questionnaire study, the authors conclude that where there has been a long-standing dependency on superior authorities, institutions are unlikely to initiate innovations. They suggest an inverse relation between central control (and planning) and innovative capability in the operating units. Based on the case studies, the Swedish investigators argue against the usual preoccupation of innovation researchers with establishing a general theory of innovation. Instead, they see explanatory models as dependent on the character of both the innovation and the system. The main characteristics of the system that should be probed are membership structure, ideology, technology organizational structure, and relations to the outside world. In this regard, they maintain that universities possess characteristics that distinguish them from other organizations. For example, the most important membership groups consist of teachers and researchers organized in subsystems according to disciplines, with competence and professional identity noted in individual disciplines. This affects ideology, organizational structure, and all other primary characteristics.

The authors also make a useful distinction between innovations that are consistent with the system—i.e., in agreement with its existing main characteristics—and those that are divergent from the system. They then conclude that whereas innovation researchers generally regard the innovation process as a diffusion or information process, they should more properly regard it as a political process, especially where innovations diverge from the system.

This brief report is an excellent example of the important international contributions Swedish researchers are making to the understanding of higher education. Their findings and perspectives provide significant insights into the complexities and unique features of systems of higher education and the limits of central planning. Much opinion in Sweden has recently swung in favor of decentralization, in part because centralization is viewed as obstructing the diversity, flexibility, and innovative effectiveness that are becoming more and more necessary. If implemented, the Swedish effort in deliberate decentralization will be an experiment in planning for unplanned change.

1:0/77-3

Academic Power in Italy: Bureaucracy and Oligarchy in a National University System, Burton R. Clark, 205 pp. (University of Chicago Press, Illinois).

This study analyzes the way in which power is exercised in a national system organized according to a single institutional form (the national university) and under the control of a single bureau (the ministry of education).

The first chapter describes the development of Italian universities over eight centuries, identifies the universities themselves and their faculties, and poses the problems of system making. Chapters 2 and 3 describe the relatively weak bureaucratic means of coordination that have developed and the relatively strong oligarchical means of linkage and dominance, which have given senior professors great power nationally as well as locally. Chapter 4 reviews the Italians' efforts since 1960 to reform their system. And Chapter 5 reasserts the concept of the guild as a way of understanding the nature and strength of personal and collegial authority in academic systems in many countries

The author emphasizes the high degree to which planning is shaped by the academic and political context in which it takes place. A centralized system, ostensibly integrated by a national ministry, might be assumed to have the capacity to form and implement plans; but this capacity is weak in Italy. The academic oligarchs do not want a separate class of academic planners; the executive branch is weak (in comparison to France or the United States, for example) and offers weak political support for planning; and the bureaucracy itself is relatively mediocre in initiative and ability. In this setting, planning is diffuse, handled discreetly by diverse academic bodies, or, in a few cases, by central committees of academic oligarchs. Change comes about incrementally, and largely through political action rather than bureaucratic mandate or professional control. A centralized formal structure provides no assurance that planners will be able to ply their trade. In the author's view, the substructure of academic life, rooted in the way that universities and faculties are organized, undoubtedly has great momentum and influence in determining what is done in Italy, as well as in many other countries.

1:0/77-4

The Politics of Higher Education in Brazil, Jerry Haar, 222 pp. (Praeger Publishers, New York).

The author set out to "examine the formation of public policy regarding access to higher education in Brazil from 1964 to 1975, and [to] reveal why, how, and when policy change developed, and the individuals and groups involved." Brazil—the fifth largest nation of the world—has pursued modernization under an "authoritarian" regime, which is nominally in a strong position to plan policies expeditiously and to see that they are carried out. Brazil has tried to implement planning in higher education, particularly in the regulation of entry into institutions and the flow of graduates into the job market.

Haar's central finding is that major planning has not been realized. In search of appropriate theoretical understanding, he turned to "disjointed incrementalism" as the best way of explaining the Brazilian case. This theory, by Charles E. Lindblom, an American political economist, holds that policies that are politically feasible are usually only incrementally or marginally different from existing policies, and that the policy process is normally quite disjointed as various parties move in and out of the action.

Haar applied "the eight states of disjointed incrementalism" to his findings in the Brazilian structure and determined that seven of the eight stages applied, despite the great differences in governmental structure between Brazil and the United States. Choices, even under a centralized military government, "were made at the margin of the status quo: only incremental changes were planned and operationalized." In fact, due to the heavy weight of tradition in higher education, policy formation in this sector was "even less inclined to deviate from the status quo." The variety of policy alternatives that could be realistically considered was restricted considerably by the "nature, structure, vitality, and response capabilities" of the entrenched bureaucracy.

The central difference between Brazil and the United States regarding the Lindblom theory is the relative integration of analysis and evaluation in Brazil compared to the way it is fragmented throughout American society. The author concludes that "the rejection of disjointedness [in analysis and evaluation] is a precarious course of action. For the absence of independent sources to analyze, evaluate, and criticize issues, problems, and actions can often result in a homogenized and sterile assessment of policy. Pitfalls and dangers at times cannot be anticipated; and innovation, experimentation, and sound contingency planning cannot proceed."

1:0/76

Ambiguity and Choice in Organizations, James G. March and Johan P. Olsen, 408 pp. (Universitetsforlaget, Bergen, Norway).

In the 17 chapters of this book, March and Olsen interweave lively and penetrating theoretical discussion with case study reports by 10 authors, including themselves, on decisionmaking in Norwegian, Danish, and American higher education. The book is devoted largely to decisionmaking within institutions, although two case studies concentrate on national system processes. The theoretical ideas that dominate the book are potentially useful at both the system and institutional levels of organization.

One Norwegian case study offers a fascinating analysis of how a national system came to decide on the location of the country's third medical school. The researcher shows how a shift in the country's general values toward emphasis on regional development influenced bureaucratic and professional arguments for locating the medical school in one city instead of another. There was a complex connection between "rational acts" by participants and the final outcome. The author points out that "an important precondition for applying the garbage-can model [of James March] to the analysis of more encompassing social structures . . . seems to be that the different interests or power groups involved are of roughly comparable strength." A powerful chief or group can clean up a garbage can. But the typical situation in higher education is that power is diffused among many groups.

The book primarily contributes theoretical arguments that draw decisionmaking theory away from the neat logic of traditional models and toward complicated concepts that are more appropriate for higher education, where, in the language of March and his associates, organizations "deal with ambiguity—goals that are unclear, technologies that are imperfectly understood, histories that are difficult to interpret, and participants who wander in and out." Although often unclear, the book presents a powerful revisionist argument that is currently under debate by decisionmaking theorists. It is a valuable theoretical statement for planners and administrators in higher education.

1:0/70

Bureaucracy and National Planning: A Sociological Case Study in Mexico, Guy Benveniste, 141 pp. (Praeger Publishers, New York).

In this case study, Benveniste explores the national planning of education in Mexico, while attempting tentative answers to such broad questions as: "Where, when and how do planners accrue the power necessary for the implementation of the plans they elaborate? What are the limits on this power and, therefore, what are the limitations of any planning exercise?" He considers all levels of education, focusing on the processes rather than the contents of planning.

The author concludes that in Mexico and elsewhere there is a wide discrepancy between the prevailing theoretical concepts of planning and the processes that actually take place. The processes are inherently political, involving the accumulation and use of power. Therefore, the normal picture of impartial, rational action on the part of planners in Mexico is not realized: "the conventional ideology of planning was clearly dysfunctional to the ongoing process. The fact that planners were not expected to be organizing coalitions of implementers made their own search for a formula that had a chance of being implemented that much more difficult."

Successful planning is heavily dependent on the "exchanges" in which planners participate, i.e., those transactions necessary to build consensus and elicit cooperation from future implementers. Such exchanges are commonly done among relatively small groups of experts and leaders; hence, the process is not a particularly democratic one, and the intended beneficiaries are commonly left out. Benveniste interprets both the French and Mexican student revolts of 1968 as in part a reaction to planning processes that did not allow students much of a voice.

Thus, he concludes that: "If we want planning to be a tool of social transformation that limits the need for violence and the erosion of existing institutions, then . . . we need to perceive the political weight of the potential beneficiaries whose lives are to be affected by planning, and we need to invite these groups into the planning process."

1:0/66

Planning for Education in Pakistan: A Personal Case Study, Adam Curle, 208 pp. (Harvard University Press, Cambridge, Mass.).

As described by Philip H. Coombs in the foreword to this book, the author "gives us what might be described as a personally conducted psychic tour of a developing country by a technical assistance expert." Adam Curle "both emphasizes the crucial role of expatriate advisers and cuts them down to size." His purpose in the book is to shed light on the position and difficulties of foreign advisers and to discuss problems of educational planning in Pakistan. He begins with a chapter on the "dubious role" of the adviser, devotes the next four chapters to educational planning in Pakistan, and concludes with four brief chapters on the role of education in development and on personal reflections on his planning experiences.

The result is a uniquely fascinating account of the many difficulties of the educational planner's role within the context of national planning in a developing society. One extremely unsatisfactory aspect of being a short-term adviser, Curle points out, is that: "It is much easier to construct a plan than to implement one. It is not usually difficult in a country as poor as Pakistan to realize what needs to be done. It is incredibly hard, on the other hand, to do it."

Curle was one of the first experts in any field of planning to stress that "the planner is not just someone who sits spinning out plans for others to put into operation. He has, or should have, a continuing concern for their implementation." And "the things which make a plan either easy or hard to implement are functions of administrative structure, of the conventions and procedures of the field involved, of the current political situation, of the personalities of men in key positions. These are matters which can only be learned the hard way, by experience."

1:0/59

British Universities and the State, Robert O. Berdahl, 229 pp. (University of California Press, Berkeley), 1977 (Arno Press, New York).

Robert O. Berdahl's 1959 book on British higher education, reprinted in 1977, is widely recognized as the classic work on the British University Grants Committee (UGC). The volume remains relevant to the problems of relations between the universities and government in other countries as well as in Great Britain.

Part One, in five chapters, traces the historical evolution of university-state relations in Britain, from the beginnings of Oxford and Cambridge to the years following World War II. Particularly interesting are the conditions of university weakness after World War I that helped lead to the establishment of the UGC, the gradual transition to an overall state policy for universities during the next 20 years (1919-1939), and the emergence of "positive state leadership" in the period following World War II.

Part Two, organized topically, examines the constitutional, administrative, and political aspects of the state's dealings with the universities as a basis for determining whether university autonomy has been affected by state actions. Berdahl concludes that, at the end of the 1950's, university autonomy had survived remarkably well, due largely to the UGC. Given the universities' relative poverty and the state's need for vital resources, "no other system could have done what the present system has accomplished—namely, integrated university operations into the framework of national planning without damaging the essential attributes of university autonomy." The author thinks that at least the general principles of the UGC-style linkage between state and university are exportable, e.g., that "the execution of the subsidized policies should be entirely free from the close state supervision which normally accompanies grants of public funds." The UGC model represents national planning by responsible academic notables.

At the time this book was first published, the UGC still occupied a unique place in British government as a relatively autonomous unit that, with little scrutiny, received funds directly from the Treasury Department. Berdahl notes three conditions that limited the demands of the state for accountability. The first was a high degree of trust and informality made possible by a "common outlook of government and university leaders": they had gone to Oxford and Cambridge together. The second was state financial stability: there seemed to be enough money to go around. The third was the absence of partisan controversy about the universities: political parties, interest groups, and the general public were not very interested. But these conditions began to change in the mid-1960's, as financing tightened, controversy developed, and trust and informality came under severe strain. State control grew considerably and Berdahl's study clearly foretold this possibility. In addition to specifying the three above conditions, he notes the possibility of growing rigidity if all universities are heavily dependent on a single source, and observes that the UGC had "acquired a formidable *potentiality* for power which could be abused in less happy times."

2

Demography

Stephen P. Dresch

The evolving demographic environment has profound and critical impact on higher education and thus on education policy and planning. First, demographic phenomena directly and indirectly determine and influence *social demands* on higher education. Second, the *structure and performance* of colleges and universities reflect to a high degree responses of the education system to these social demands, responses which thus are indirectly conditioned by the demographic environment.

Changes in the size and composition of population directly influence social demands on and for higher education. Perhaps even more important, changes in demographic structure may themselves induce alterations in the behavior patterns of individuals and groups. These indirect effects on higher education must be traced through those other social institutions (e.g., the family and the labor market) to learn how higher education can interact more effectively with these sectors.

Social Demand. Most analyses of demographic influences on social demand have emphasized direct effects, e.g., the effect of changing age cohort size on enrollment. Indirect effects, such as the consequences of declining fertility rates on female labor force participation and educational behavior or the impact of declining birth rates on demands for pediatricians and teachers, have only recently begun to be examined in any detail.

The selections in this subject area necessarily overlap in substance with those included under other topics (e.g., Economics, Work and Education). However, the fundamental principle of selection differs. In this section, primary emphasis is on the transmission of demographic influences. Thus, for example, general studies of the determinants of demands for different educational classes of labor are not included, but studies focusing specifically on the consequences of demographic change for labor market demands for the highly educated are included.

Sectoral and Institutional Structure and Performance. Demographic influence on sectoral and institutional structure and performance is multifaceted and pervasive. Current institutional configurations and practices have evolved over more than a century of virtually uninterrupted growth that has been, to a significant extent, demographically driven. The consequences of reduced and/or "unsteady" growth are thus relatively unknown.

The entries selected on sectoral and institutional structure and performance emphasize the changing internal demography of faculties (the most growth-dependent facet of the structure and performance issue) and the implications of the demographic environment for sectoral efficiency and planning. Some issues span the domains of both social demand and sectoral and institutional structure and performance. This is true, for example, of studies that examine the consequences of the changing demographic composition of enrollment for different classes of institutions. Rather than being included in a third section, these intersecting studies are classified according to their predominant thrust.

Unfortunately, it appears that no general or comprehensive treatments of the subject of demography and higher education exist.

TOPIC ORGANIZATION

2: Demography
    1.0 Social Demand
        1.1 General
        1.2 Population Size, Composition, Growth, and Migration

2.0 Sectoral and Institutional Structure and Performance
  2.1 Demographic Structure of Faculties
  2.2 Sectoral Efficiency and Planning

1.0 SOCIAL DEMAND

1.1 General

2:1.1/80

Birth and Fortune: The Impact of Numbers on Personal Welfare, Richard A. Easterlin, 205 pp. (Basic Books, New York).

The central theses of this intriguing volume, which is written for a nontechnical audience, are: (1) that mature industrial economies are characterized by a self-perpetuating, roughly 40-year demographic cycle; and (2) that the social and economic characteristics and experiences of a birth cohort are largely determined by the relative size of that cohort.

Easterlin argues that with the general acceptance and success of countercyclical economic policies that have greatly reduced the relative magnitudes of economic crises, the economic success of a birth cohort is determined primarily by its relative size. Members of a large cohort confront intense competition on entry into the labor market, receive less desirable and relatively lower paying jobs, experience lower rates of advancement over the life cycle, and the like; the reverse is true for members of small birth cohorts. The deterioration in the economic well-being of large cohorts, then, has pervasive consequences for behavior, as reflected in labor force participation, marriage, fertility, and schooling. The self-perpetuating demographic cycle derives from the effect of economic well-being on fertility: Members of a large cohort respond to economic constraints by reducing fertility, while the relative economic success of small cohorts leads to increases in fertility. The relationship of fertility to economic conditions confronting a cohort derives not only from conscious decisions concerning family size, but also, and perhaps more importantly, from the effects of economic constraints on female labor force participation rates, marriage rates, age at marriage, and divorce rates.

Easterlin attributes much of the substantial increase in female labor force participation over the last two decades to the relatively unfavorable labor market confronting young adults. In turn, higher rates of and more continuous labor force participation have encouraged increases in female educational attainments. For young males, however, the weakening of the labor market has been accompanied by a decline in returns to schooling and has thus led to reduced educational attainments. The latter has been reinforced by the "sibling squeeze" phenomenon (closely spaced children) characteristic of the high fertility post-war period.

Easterlin's analysis is extremely broad-brush, and many of the hypotheses may have to be refined or qualified as a result of more narrowly focused studies. For example, the timing of the cyclical "recovery" may lag significantly behind the onset of declining cohort size. Also, certain of the changes in behavior induced by large cohort size may be, at least in part, irreversible. Finally, the conditions under which large cohort size implies a disproportionate weakening in the labor market for the more highly educated need to be identified, since the effect may be a reflection of unique circumstances.

Although the analysis may raise more questions than it answers definitively, it contributes significantly to recognizing the interrelationships of a number of socioeconomic phenomena that have important social implications, not least for higher education.

2:1.1/76

The Demographic Context of Educational Policy Planning, Peter A. Morrison, 32 pp. (Aspen Institute for Humanistic Studies, New York).

This study provides a comprehensive and comprehensible assessment of current fertility patterns and trends and of the implications of changing fertility for the age structure of the U.S. population. The implications of trends in female labor force participation, the "sibling squeeze," migration and metropolitan contraction, and racial separation are also reviewed.

1.2 Population Size, Composition, Growth, and Migration

2:1.2/A

Current Population Reports, U.S. Bureau of the Census (U.S. Government Printing Office, Washington, D.C.).

The *Current Population Reports* series constitutes an indispensable source of detailed current and historical information on and projections of the size, geographic distribution, characteristics, and behavior of the U.S. population. These reports are based principally on the Current Population Survey (CPS), a monthly survey conducted by the Bureau of the Census and jointly sponsored by the Bureau of the Census and the U.S. Bureau of Labor Statistics. The CPS, initiated in 1940, currently consists of approximately 55,000 households. The CPS includes a core set of questions concerned primarily with labor force status. Beyond this, the substantive content of the CPS varies from month to month, but it is generally constant across years, thus providing consistent data over time. Current and historical labor force data (employment and unemployment rates, hours of work, etc.) are published by the Bureau of Labor Statistics. (See, especially, *Monthly Labor Review* and *Employment and Earnings*.) Summary time series statistics from the *Current Population Reports* are published by the U.S. Bureau of the Census in *The Statistical Abstract of* *the United States* (U.S. Government Printing Office, annual) and in *Historical Statistics of the United States, Colonial Times to 1970* (U.S. Government Printing Office, 1976). More detailed time series statistics must be developed from the individual issues of the *Current Population Reports*.

Individual issues of the *Current Population Reports* are published in the following principal series: *Series P-20. Population Characteristics; Series P-23. Special Studies; Series P-25. Population Estimates and Projections; Series P-27. Farm Population* (published jointly by the Bureau of the Census and the Economic Research Service, U.S. Department of Agriculture); *Series P-28. Special Censuses;* and *Series P-60 Consumer Income*. Many titles within each series are recurrent, appearing annually and based upon a particular month's survey. The more important monthly surveys include October (school enrollment), March (income, earnings, and educational attainment), and June (fertility and child-spacing). Because of substantial lags (often 1 to 2 years) between data collection and publication of detailed reports, many titles are preceded by summary Advance Reports published within 3 to 6 months of original data collection.

The most important series for purposes of educational planning are P-20 (*Population Characteristics*), P-25 (*Population Estimates and Projections*), and P-60 (*Consumer Income*). These series and especially relevant, recurrent titles in each, are discussed in greater detail below.

Series P-20. Population Characteristics

This series consists primarily of recurrent titles (generally appearing annually) that provide consistent data over time concerning population composition, characteristics, and behavior. Data presented in this series are generally cross-tabulated by sex, race-ethnicity (white, black, Spanish origin), region, and residence (metropolitan, nonmetropolitan). Representative titles in this series include the following:[1]

- "School Enrollment—Social and Economic Characteristics of Students: October 19xx."*
- "College Plans of High School Seniors: October 19xx."*
- "Educational Attainment in the United States: March 19xx and 19yy."*.
- "Marital Status and Living Arrangements: March 19xx."*
- "Geographical Mobility: March 19xx to March 19yy."*
- "Voting and Registration in the Election of November 19xx."*

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[1] An asterisk (*) indicates that a title is recurrent. In the case of recurrent titles, the year is denoted "19xx." For nonrecurrent titles, the number of the report and its date of issue are noted. Reports are numbered consecutively within each series. Thus, an individual report is identified by its series, number, title, and date of issue.

- "Fertility of American Women: June 19xx."*
- "Persons of Spanish Origin in the United States: March 19xx."*
- "Population Profile of the United States: 19xx."*
- "Vocational School Experience: October 1976." (No. 343, September 1979)
- "Travel to School: October 1978." (No. 342, September 1979)
- "Trends in Childspacing: June 1975." (No. 315, February 1978)
- "Relative Progress of Children in School: 1976." (No. 337, April 1979)
- "Major Field of Study of College Students: October 1974." (No. 289, February 1976)
- "Demographic, Social, and Economic Profile of States: Spring 1976." (No. 334, January 1979)

Seven titles are of particular relevance to higher education and thus are given specific annotation in the following paragraphs.

"School Enrollment—Social and Economic Characteristics of Students: October 19xx" is a series of annual reports for which Advance Reports are issued within about 6 months of data collection. It provides detailed information on the school and college enrollment status of the population 3 years old and over. Reasonably comparable data (published under this or a very similar title) are available beginning in 1946. Data are reported by age, sex, and race-ethnicity, and, for persons not enrolled, by high school completion status. Further breakdowns are provided by residence (nonmetropolitan, metropolitan non-central-city, metropolitan-central-city), level of schooling, attendance status and control (grade or year-of-college, full-time or part-time, public or private/independent), prior year attendance status and educational attainment (for those not enrolled), marital status, educational attainment of the family head, and family income. Because of sample size constraints, geographic disaggregation, when provided at all, is limited to the four-region level (Northeast, Northcentral, South, and West). In addition to detailed data for the current year, summary statistics for the preceding 10 years are included in each report.

"College Plans of High School Seniors: October 19xx" reports college plans of high school seniors by age, sex, race-ethnicity, region, metropolitan/nonmetropolitan residence, college attendance status of other family members, family income, and educational attainment and occupation of the family head. The most serious deficiency of these data, apart from delays in their release, is that no attempt is made to assess the degree to which plans made in October of the senior year of high school predict actual college entry. Such an analysis would be possible, in principle, because the design of the CPS provides for a sample rotation under which a household is included in the sample for 4 consecutive months, is removed for 8 months, and is then included for a final 4 months. Thus, apart from noninterview difficulties, approximately one-half of the sample in any month was surveyed in the same month in the prior year, while the other one-half would be surveyed in the same month in the following year.

"Educational Attainment in the United States: March 19xx and 19yy" reports distributions over years of school completed by persons 14 years old and over by age, sex, race-ethnicity, occupation, marital status and relationship to household head, and educational attainment of spouse. In addition to national cross-tabulations, more aggregative information is provided by region and for the 15 largest states and Standard Metropolitan Statistical Areas.

"Population Profile of the United States: 19xx" is a summary presentation of data provided in more detail in other issues of the *Current Population Reports* or compiled from other sources. This report provides a general picture of the socioeconomic and demographic characteristics of the population, with sections covering population growth, social characteristics, population distribution, employment, income, and race-ethnicity. This source is useful for a broad assessment of population changes with implications for college enrollment.

"Geographical Mobility: March 19xx to March 19yy" provides interregional and metropolitan/nonmetropolitan migration rates by socioeconomic and demographic characteristics.

"Major Field of Study of College Students: October 1974" (No. 289, February 1976) provides detailed distributions of students—classified by year of college, sex, age, race-ethnicity, marital status, occupation of family head, and family income—over 15 major fields of study. This title is, unfortunately, not recurrent.

"Trends in Childspacing: June 1975." (No. 315, February 1978) provides a detailed assessment of changes in child spacing over time and in relation to the marriage and fertility patterns of women. This information is particularly useful in the context of findings relating college attendance to birth order and ages of siblings.

Series P-25. Population Estimates and Projections

As its title implies, this series provides estimates of current and projections of future population. Estimates of population and of components of population changes (births, deaths, net migration) are developed for the United States, individual states, counties, and Standard Metropolitan Statistical Areas. In addition to population, various reports present estimates of per capita money income. The more important titles are annotated below.

"Estimates of the Population of the United States by Age, Sex, and Race: 1970 to 19xx" presents estimates—by year of age, sex, and race (white, black, other)—for the *total* population (incuding armed forces overseas), the *resident* population (excluding armed forces overseas), and the *civilian* population (total excluding all members of the armed forces).

"Estimates of the Population of Counties and Metropolitan Areas: July 1, 19xx and 19yy" presents population estimates and components of change since the last decennial census.

"1977 Per Capita Money Income Estimates for States, Counties, and Incorporated Places in the ____ Region of the United States." [No. 882 (Northeast), No. 883 (East North Central), No. 884 (West North Central), No. 885 (South), No. 886 (West), various dates, 1980] is the only source of intercensal estimates of income by geographic area.

"Projections of the Population of the United States: 1977 to 2050." (No. 704, July 1977) develops projections of the population by age, sex, and race under three alternative assumptions concerning long-term trends in fertility rates. Post-1976 experience suggests that the lower alternatives will be closer to the mark in the relatively short term.

"Illustrative Projections of State Populations by Age, Race, and Sex: 1975 to 2000" (No. 796, March 1979) indicates the nature of the problem of forecasting population at the subnational level.

"State and Local Agencies Preparing Population Estimates and Projections: Survey of 1975-76" (No. 723, June 1978) identifies 474 state, local, and regional agencies that make intercensal population estimates and population projections. For each agency, the area of coverage and methods employed are indicated.

Series P-60. Consumer Income

This series presents detailed information of the incomes of households, families, and individuals. In general, these estimates are restricted to money income, although efforts are currently under way to measure noncash benefits of social welfare programs.

"Money Income of Families and Persons in the United States: 19xx" provides annual estimates of income of families and individuals by detailed socioeconomic characteristics, with disaggregation to the regional level.

"Characteristics of the Population Below the Poverty Level: 19xx" provides detailed information on socioeconomic characteristics, educational attainments, labor force attachment, etc., for the poverty population.

"Annual Mean Income, Lifetime Income, and Educational Attainment of Men in the United States, for Selected Years, 1956 to 1972" (No. 92, March 1974) presents income by age and lifetime income under alternative assumptions concerning discount rates and rates of productivity increase for seven educational attainment groups (from less than 8 years of schooling through 5 or more years of college). Estimates are developed for all males and for full-time, full-year workers. Unfortunately, this series for the period 1956 to 1972 is not directly comparable to subsequent estimates for 1979 (see next entry), and the Census Bureau apparently has no current intention to recast either the more recent or earlier estimates to achieve comparability. However, as noted below, an adjustment to the most recent estimates and derivation of a consistent series is available.

"Lifetime Earnings Estimates for Men and Women in the United States: 1979" (No. 139, February 1983). In contrast to the previous report, providing information on lifetime *incomes* of males over the period 1956 to 1972 (in constant 1972 dollars), this report provides estimates of lifetime *earnings* of men and women in 1979 (in constant 1981 dollars). While the earlier report provides estimates for (a) full-time, full-year workers and (b) all persons with income, this more recent report provides estimates for (a) full-time, full-year workers and (b) all persons, adjusting for the probability of nonparticipation in the labor force. Apart from the discrepancy between income and earnings, the data for full-time, full-year male workers are, in principle comparable. An adjustment of the later data to achieve comparability with the earlier data and presentation of a consistent series for the period 1968 to 1979 is available in Stephen P. Dresch, "Education and Lifetime Earnings: The Census Bureau's Misguided Misrepresentations," *Review of Public Data Use* (forthcoming, December 1983). That paper finds substantial declines in the relative earnings gain associated with college and postcollege educational attainments, by comparison to high school graduation, over the period 1972 to 1979.

"Illustrative Projections of Money Income Size Distributions, for Households: 1980 to 1985" (No. 122, March 1980) projects future income distributions (in constant 1977 dollars) under alternative assumptions concerning the rate of real income growth and alternative projections of the number of households by type (husband-wife families, other families, unrelated individuals) and age of head.

See also: 12:4.1/A-2 **Digest of Education Statistics,** W. Vance Grant and C. George Lind, and 12:4.1/A-5 **Projections of Education Statistics,** Martin M. Frankel and Forrest W. Harrison.

2.0 SECTORAL AND INSTITUTIONAL STRUCTURE AND PERFORMANCE

2.1 Demographic Structure of Faculties

2:2.1/80-1

U.S. Faculty After the Boom: Demographic Projections to 2000, Luis Fernandez, 167 pp. (Jossey-Bass, San Francisco).

Essentially a somewhat more sophisticated updating of the late Allan M. Cartter's last projections (18:6.0/76), this study assesses the effects of enrollment decline, responses of promotion rates to excess faculty supply and demand, and changes in the mandatory retirement age and in retirement policies and behavior on faculty size, composition, and hiring. Implications for female representation on academic faculties are considered.

2:2.1/80-2

Mathematicians in Academia: 1975-2000, Charlotte V. Kuh and Roy Radner, 109 pp. (Conference Board of the Mathematical Societies, Washington, D.C.).

Using a variation of the aggregate Radner-Kuh faculty model (see 2:2.2/78), the authors develop a forecast of faculty size, composition, and hiring for the discipline of mathematics to the year 2000. They project a 75 percent decline in new hires of academic mathematicians between 1980 and 1993, and anticipate a rise in the median age of tenured faculty from 43 to 57 years over the same period. The quantitatively more extreme results for mathematicians than for faculty as a whole indicate the importance of disaggregation in this type of analysis. However, the mathematical societies are unusual in the data they collect and maintain, and similar analyses may thus not be possible for many other disciplines. At the least, the mathematical societies provide a model, the emulation of which should be encouraged.

See 18:6.0/76 **Ph.D.'s and the Academic Labor Market,** Allan M. Cartter.

The central insight of Cartter's analysis of the academic labor market is that the demand for faculty is a derived demand for a capital good, dependent on enrollment, and that even a decline in the rate of enrollment growth will imply an absolute decline in the demand for new faculty. Thus, his 1964 anticipation of a Ph.D. surplus rested not on a decline in the size of the college-age cohort but rather on a substantial decline in its rate of growth in the late 1960's. The more recent absolute decline in births, then, implies a more severe and more prolonged deterioration in the academic labor market.

Cartter develops a series of ever more refined models of: (1) the demand for new faculty, taking into account, for instance, induced changes in graduate enrollment, changes in the rate of gross inflow (outflow) of senior faculty from (to) nonacademic employment, and changes in mortality and retirement rates as the faculty age distribution shifts over time; and (2) the effects of labor market conditions on graduate school entry and degree completion rates. These models were developed in a manner that should be highly comprehensible to the noneconomist.

Cartter's general conclusion is fundamentally pessimistic: junior faculty openings will be very low, in some years negative, throughout the 1980's. And although graduate entry and persistence rates will decline, faculty openings may absorb as few as 3 percent of new doctorates in the

1981-85 period. He further concludes that graduate enrollments may decline by more than 20 percent between the late 1970's and the mid-1980's, and that salaries in academe can be anticipated to decline significantly relative to wages and salaries in other sectors.

2.2 Sectoral Efficiency and Planning

See: 26:2.4/79 **Another Challenge: Age 70 Retirement in Higher Education,** Hans H. Jenny, Peggy Heim, and Geoffrey C. Hughes.

This study assesses the probable implications for academic institutions and faculty of the 1978 amendments to the Age Discrimination in Employment Act, which raised the minimum mandatory retirement age to 70 (effective for tenured faculty on July 1, 1982). The authors consider the effect of the law within the context of probable enrollment declines and a downward-skewed age distribution of faculty. They examine consequences for the achievement of equal employment opportunity objectives and for the state of the academic labor market, and give primary attention to retirement income planning and to consequences of alternative retirement income policies of institutions.

A major strength of the study is its clear and explicit recognition that the personnel difficulties that will confront many higher institutions over the decade of the 1980's (e.g., rising tenure ratios and faculty age distributions, and declines in new faculty hires and in faculty turnover) are not primarily the consequence of the increase in the minimum mandatory retirement age, but rather reflect the fairly sudden transition from persistent growth to contraction.

2:2.2/79

The Decline of the Best? An Analysis of the Relationships Between Declining Enrollments, Ph.D. Production, and Research. Robert D. Klitgaard, 87 pp. (John F. Kennedy School of Government, Harvard University, Cambridge, Mass.).

This study raises explicitly the issue of the qualitative implications of the quantitative decline in Ph.D. production and in new faculty hires that will be a consequence of declining enrollments in the 1980's and early 1990's. While the author does not attempt to reach definitive conclusions, he does identify the central questions and indicates clearly that, from a social as opposed to parochial (academic) perspective, it is the qualitative implications of quantitative contraction that are important, not quantitative contraction itself.

2:2.2/78

Preserving a Lost Generation: Policies To Assure a Steady Flow of Young Scholars Until the Year 2000, Roy Radner and Charlotte V. Kuh, 57 pp. (Carnegie Council on Policy Studies in Higher Education, Berkeley, Calif.).

This study is important because it explicitly addresses the impact of enrollment decline on the age distribution of faculty, and especially on young faculty, and attempts to assess quantitatively the effect of alternative policy responses. A certain skepticism, however, is warranted toward the authors' apparent belief in the adequacy of this type of analysis to support finely tuned policies designed to mitigate market disequilibrium.

2:2.2/75

"Numerical Models for Faculty Planning," David S.P. Hopkins and Arthur Bienenstock, pp. 23-47 in *Assuring Academic Progress Without Growth,* New Directions for Institutional Research No. 6, Allan M. Cartter, ed. (Jossey-Bass, San Francisco).

This paper develops a closed model of the demographic structure of faculty, explicitly identifying the effects of institutional policies relating to promotion/retention of junior faculty and the retirement of senior faculty. The effects of alternative policies in the face of a stationary total faculty size are assessed, focusing on the proportion of the faculty that is tenured and the proportion of faculty over age 45. Benchmark data on the Stanford University faculty were used in the analysis.

3

Economics

Stephen A. Hoenack

The economics of higher education is concerned with the efficient use of resources and with the equity of financing and student access. Economists address issues of efficiency and equity through analysis of two broad behavioral questions: How are students, faculty, institutions, and public and private funders influenced by market prices and other incentives? What is the economic impact of higher education on students and the corresponding monetary and nonmonetary returns to higher education as an investment?

Much of the economic analysis of higher education can be useful in planning because economists emphasize the effects of variables that are controlled by policy on the behavior studied. Economic analysis also can provide information about the relative desirability of exercising control over these variables at the Federal, state, and less centralized levels of responsibility (e.g., institutions, students, donors, faculty, and purchasers of research).

In this bibliography, literature dealing with the economics of higher education has been placed in five categories. Three deal with the effects of incentives—on student behavior, on faculty and institutions, and on higher education's funders. The fourth and fifth categories deal with the economic impact of higher education on students and the incidence of benefits and costs of educational subsidies.

Economic research covers some topics in more detail than others; yet the policy significance of certain neglected yet important areas may be high. For example, while a substantial amount of work has been done on the response of enrollments to prices (tuition), much less research has been done on the effects of intra-institutional incentives, such as on faculty behavior. Some unevenness in coverage may simply be due to the unavailability of data. In selecting entries for this bibliography, the importance of each topic has been a more significant factor than the amount of research available. In cases where a large body of studies exists (e.g., demand for higher education), survey reports or articles are substituted when available. Another criterion for selection was the use of methodology, that is, of unusual quality or likely importance for future research.

The annotations include citations of additional important reference materials. In several cases, a single entry contains content in more than one of the defined topics. Works of this type have been entered under the topic of primary importance, and other topics covered are noted at the end of the annotation.

Finally, in revising this chapter,* new or additional literature has sometimes been included within the annotations for earlier studies. This has been done when the earlier studies established a basic line of research within which the recent research is most usefully described and interpreted.

Incentives and Student Behavior. Student choices among institutions and careers are influenced by the prices of educational services and by the wages and working conditions determined in labor markets. The entries in this subtopic are divided according to their attention to the effects of prices of educational services or to the effects of labor market variables on student behavior. (See also Topic 18: Work and Education.)

Incentives and Faculty and Institutions. The clientele that institutions choose and the workloads that faculties take on are influenced by at least three kinds of incentives: incentives within institutions; incentives resulting from competition among institutions for students, faculty, and research support; and incentives determined by the funding policies of public and private funders. This subtopic reviews the scant literature in this relatively neglected area of the economics of higher education. Interactions between institu-

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*This topic appeared as Chapter 5 of *Higher Education Planning: A Bibliographic Handbook*, published by the National Institute of Education in June 1979.

tions and students, measures of existing incentives on faculty, and issues in altering incentives on faculty and institutions are considered in separate subtopics.

Incentives and Public and Private Funders. Of particular interest in this also relatively neglected area is the analysis of how public and private (donor, student, and institutional) funders influence each other's support efforts. Mutual determination of public and private funding and donor behavior in relation to tax policy are described in separate subtopics.

Economic Impacts of Higher Education on Students. Many studies have attempted to measure the economic impact of higher education on students, including both aggregative returns and such specific measures as differential impacts of attendance at alternative kinds of institutions. (See also Topic 18: Work and Education.) However, a number of theoretical and statistical problems make the causal interpretation of many of these measures ambiguous. Fortunately, there have been some recent methodological advances in this area, including the use of data on twins to control for influences of genetics and family background when estimating effects of education on earnings.

Incidence of Benefits and Costs of Educational Subsidies. This subtopic, closely related to the one on economic impacts, includes both the pioneering studies that developed the measures used and more recent theoretical work designed to evaluate the intergenerational benefits and costs of subsidies.

A number of the studies in this chapter may have substantial value to policymakers and planners who are willing to become sufficiently informed to make their own conceptual and methodological judgments. Like most parts of economics, the economics of higher education is in a state of active methodological change. For this reason, the usefulness of studies of the economics of higher education depends on the policymaker's understanding of the underlying conceptual problems and technical issues.

TOPIC ORGANIZATION

3: Economics

- **1.0** Incentives and Student Behavior
  - **1.1** Effects of Prices of Educational Services
  - **1.2** Effects of Labor Market Variables

- **2.0** Incentives and Faculty and Institutions
  - **2.1** Interactions Between Institutions and Students
  - **2.2** Measures of Existing Incentives on Faculty
  - **2.3** Issues in Altering Incentives on Faculty and Institutions

- **3.0** Incentives and Public and Private Funders
  - **3.1** Interactions Between Public and Private Funding
  - **3.2** Tax Policy and Donor Behavior

- **4.0** Economic Impact of Higher Education on Students

- **5.0** Incidence of Benefits and Costs of Educational Subsidies

1.0 INCENTIVES AND STUDENT BEHAVIOR

1.1 Effects of Prices of Educational Services

See: 16:2.0/78 **Experiences of Recent High School Graduates: The Transition to Work or Post-Secondary Education,** George Nolfi and Associates.

This book and the references cited below contain a number of recent extensions of enrollment analysis that are significant for policymaking. *Experiences of Recent High School Graduates* includes topics that have been neglected by researchers—the career choices of noncollege attendees and the demand for vo-technical education. This book also contains an excellent discussion of the potential uses of enrollment demand analysis in policymaking, as well as a simulation model for illustrating the estimated effects of policy and other variables on enrollments. A recently published study of enrollment demand, which is also based on the National Longitudinal Study, is *College Choice in America,* Charles F. Manski and David A. Wise, Cambridge: Harvard University Press, 1983.

"The Demand for Higher Education and Institutional Enrollment Forecasting" (Stephen A. Hoenack and William C. Weiler, *Economic Inquiry,* Vol. 17, No. 1, 1979, pp. 89-113) extends enrollment demand analysis for forecasting at the institutional level.

"Labor Market Incentives, Intellectual Competence and College Attendance" (Stephen P. Dresch and Adair L. Waldenberg, Institute for Demographic and Economic Studies, March 1978) analyzes the decision to prepare for college, reflected in students' test scores, as being jointly determined with the decision to attend college. The model in this study, as well as that in the Hoenack and Weiler study on institutional enrollment forecasting, includes both tuition and labor market variables as influences on enrollment choices. The labor market variables have been omitted from most enrollment demand studies, while Richard Freeman's studies of the effects of labor market variables on career choice (see subtopic 1.2) have omitted tuition variables.

"Can Adults Be Hooked on College?" (John Bishop and Jane Van Dyk, *Journal of Higher Education*, Vol. 48, No. 1, 1977, pp. 39-62) applies enrollment demand analysis to the attendance choices of individuals older than the traditional college-going age group of the population. And "Evaluating College Campus Closings for the 1980's: A Case Application of the Optimization Model" (Stephen A. Hoenack and Janet K. Roemer, *Research in Higher Education*, Vol. 15, No. 1, 1981) uses enrollment demand analysis in the evaluation of the desirability of closing college campuses.

3:1.1/77

Demand for Higher Education in the United States: A Critical Review of the Empirical Literature, David J. Weinschrott, 87 pp. (Rand Corporation, Santa Monica, Calif.).

This report is a thoughtful methodological evaluation of existing studies on the demand for higher education in the United States. The author also provides a discussion of the policy issues that demand studies have addressed. The studies evaluated are those of Barnes et al.; Bishop, Corrazini et al.; Feldman and Hoenack; Hoenack; Hoenack and Weiler; Kohn; Manski and Mundel; and Radner and Miller.

The author devotes the initial section of his report to explaining the procedure and criteria used in evaluating the selected studies. The criteria include: (1) treatment of higher education as a consumption item or investment, which evaluates the theoretical justification of variables included in enrollment demand models, (2) selection of the "choice set," which evaluates the appropriateness of each study's specification of the range of collegiate choices by students and clarifies assumptions made about the nature of student choice; (3) measurement of financial aid offers, which evaluates each study's inclusion of data for all prices and financial aid faced by sampled students; (4) identification of demand/supply relationships, which evaluates how each study deals with the possibility that the causality underlying estimated relationships between tuition and enrollments are in part institutional supply behavior rather than enrollment demand behavior alone; and (5) use of "stratified estimates," which explores each study's provision of separate estimates of the effects of the amount of tuition or financial aid according to the academic ability or income status of the student. A separate section of the report details the evaluation of each demand study according to these five criteria.

The author concludes that future studies should improve on existing studies in the representation of the "choice set" of educational options and in the measurement of financial aid offers. The author finds that existing studies use samples in which institutional supply behavior is unlikely to be confused with enrollment demand. However, he argues that, in the face of projected decreases in enrollment, future research should explicitly analyze institutional supply behavior. Further, he states that, while existing studies have analyzed differential demand behavior across ability and demand classes, future studies should analyze the differential demand behavior of men and women.

Other surveys of the literature on demand for higher education are Chapter 2 in Roy Radner and Leonard S. Miller, *Demand and Supply in U.S. Higher Education*, (3:1.1/75) which also emphasizes methodological issues; Gregory A. Jackson and George B. Weathersby, "Individual Demand for Higher Education: A Review and Analysis of Recent Empirical Studies" (*Journal of Higher Education*, Vol. 46, No. 6, pp. 623-652), which compares the results of different studies; Michael S. McPherson, "The Demand for Higher Education" in *Public Policy and Private Higher Education* (5:4.3/78), which emphasizes enrollment effects of tuition differentials between public and private institutions; and Elchanan Cohn and J. Michael Morgan, "The Demand for Higher Education: A Survey of Recent Studies" (*Higher Education Review*, Vol. 1, Winter 1978, pp. 18-30), which provides helpful methodological discussion and describes a number of studies not covered in the other surveys.

3:1.1/75

Demand and Supply in U.S. Higher Education, Roy Radner and Leonard S. Miller, 468 pp. (McGraw-Hill Book Co., New York).

This book provides a number of valuable studies useful to both higher education researchers and planners. The initial section of the book deals with enrollment demand. Chapter 2 is devoted to evaluation of a number of existing enrollment demand studies, and, along with the Weinschrott survey, is probably the best such evaluation available. Chapters 3 through 5 contain a relatively complete presentation of Radner and Miller's well known econometric studies of enrollment demand. While the presentation is comprehensive and discusses a number of the technical issues and data problems the authors faced, different concepts are carefully explained and the discussion is largely understandable to the nontechnical reader. The presentation includes two topics not dealt with in other demand studies: the use of models to provide enrollment forecasts (Chapter 4), and the presentation of differences in results under alternative specifications of demand (Chapter 5).

The remainder of the book deals with supply issues: the supply of educated manpower and the supply of educational services, broadly defined to include the behavior of institutions in enrolling students and in hiring faculty. Planning issues are emphasized. Chapters 6 and 7 present an important study of faculty-student ratios in U.S. higher education. A wealth of descriptive material is presented, including time series of faculty-student ratios by type of institution for 1953-67. Also presented are 1966 values of ratios of graduate enrollments to faculty plotted against undergraduate enrollments to faculty for numerous identified individual institutions. The authors tested the alternative hypotheses for several types of institutions that increased faculty hiring either accompanies, or substitutes for, increases in faculty salaries and in quality of faculty as measured by Ph.D.'s. It is unclear exactly what the results reflect—preferences of institutional faculty, economies of scale, or strength of bargaining relationships with clienteles (including state institutions' relationships with their legislatures). Nevertheless, this is one of the first empirical attempts to deal with institutional resource allocation behavior.

Chapter 8 gives a thorough presentation of data on the numbers of Americans holding various types of degrees. Chapter 9 provides alternatives to Allan Cartter's forecasts of the academic job market for Ph.D.'s and the sensitivity of these forecasts to each of the major assumptions underlying them is described. Chapters 10 through 12 develop a dynamic input-output model for use in educational planning and provide, as policy applications of the model, calculations of the resource requirements for a universal 2-year college program and for a compensatory primary and secondary program. The calculations are presented under alternative assumptions about the speed with which plans are implemented. Because of differences between the nature of faculty demanded under these programs and the capacity of existing graduate programs, it is shown that these programs would not substantially alleviate the problems of excess capacity in higher education in the 1980's.

1.2 Effects of Labor Market Variables

3:1.2/80

The Facts About the Declining Economic Value of College, Richard B. Freeman, *Journal of Human Resources,* Vol. 15, No. 1, pp. 124-142.

This is a response by Freeman to three critiques (also presented) of his work on declining economic returns to college education. See annotation below.

3:1.2/76

The Over-Educated American, Richard B. Freeman, 218 pp. (Academic Press, New York).

The Over-Educated American is likely to be useful to the higher education planner and administrator for two purposes. First, the author describes much of his own extensive research and that of others on the functioning of labor markets for college-educated manpower. Second, he describes forecasts of the state of the college job market to 1990, based on a behavioral model. The book is well-written and readily accessible to the nontechnical reader.

The book starts with an overview of key statistics, such as real starting salaries of various categories of college-educated manpower, ratios of college-to-noncollege incomes, and fractions of the labor force represented by college graduates. The author provides evidence that the labor market for college-educated manpower relative to that for noncollege-educated manpower has declined in recent years. Chapter 2 provides some data on the responses of students and of colleges and unviersities to the decline. The analytical approach to a model of the labor market is briefly outlined and used to interpret the aggregative descriptive data in Chapter 3. The forecasts are also briefly presented.

Two articles tend to support Freeman's hypothesis of overeducation. One article, "The Incidence and Wage Effects of Over-Education" by Greg J. Duncan and Saul D. Hoffman (*Economics of Education Review*, Vol. 1, No. 1, Winter 1981, pp. 75-86), is based on questionnaire answers about workers' assessments of the skill requirements of their own jobs. Russell W. Rumberger in "The Rising Incidence of Overeducation in the U.S. Labor Market" (*Economics of Education Review*, Vol. 1, No. 3, Summer 1981, pp. 293-314), uses data on skill requirements of jobs from the *Dictionary of Occupational Titles* of the U.S. Employment Service. In both articles, measures of educational attainments corresponding to skill requirements are compared with educational attainments of workers holding the jobs.

Other authors have presented results that tend to contradict Freeman's overeducation hypothesis. James P. Smith and Finis R. Welch ("Black-White Male Wage Ratios: 1960-70," *American Economic Review*, Vol. 67, No. 3, June 1977, pp. 323-338) found that the returns to higher education increased between 1960 and 1970. They also show income ratios for "males who have completed college to males who have completed high school" in separate age groups for the years 1967, 1969, 1971, and 1973. These ratios declined significantly only for the youngest (25 to 34) groups. The ratio for this age groups in the respective years was 1.32, 1.39, 1.29, and 1.23.

In "The Facts About the Declining Economic Value of College," Freeman responds to three representative critiques (by Russell W. Rumberger, David R. Witmer, and Eli Schwartz and Robert Thornton) of his work on declining economic returns to college education. The critiques are also presented in the same issue of the *Journal of Human Resources*. Using recent data, Freeman reemphasizes his earlier results.

Although *The Over-Educated American* is best known for its presentation of Freeman's hypothesis of overeducation, several chapters present information on the labor markets for elementary and secondary teachers, college faculty, research scientists, engineers, physicians, lawyers, and MBA's. This material is of interest, both in itself and as a useful source of available research on each category of labor. The author also provides chapters on the labor markets for college-educated blacks and women. The book concludes with a speculative discussion on future problems that colleges and universities will face.

The author's forecasting model, briefly described in an appendix, has equations for: (1) enrollment of freshman males as a function of population, college, and noncollege salaries, and lagged values of freshman enrollments; (2) B.A. graduates as a function of lagged freshmen; and (3) college salaries as a function of lagged B.A.'s, an index of demand, noncollege salaries, and lagged college salaries. The equation for determining college salaries is described in more detail in the author's article, "Overinvestment in College Training?" (*Journal of Human Resources*, Vol. 10, No. 3, 1975, pp. 287-311). An important characteristic of this model is that the flow of new college graduates adjusts to equilibriate the labor market for all college graduates. This contrasts with the model provided by Stephen P. Dresch in "Demography, Technology, and Higher Education: Toward a Formal Model of Educational Adaptation" (3:4.0/75.1), in which equilibrium in the stock market results from adjustments of the stock demands and supplies for total educated and uneducated manpower.

3:1.2/71

The Market for College-Trained Manpower: A Study in the Economics of Career Choice, Richard B. Freeman, 264 pp. (Harvard University Press, Cambridge, Mass.).

This book remains the single most valuable source on the economics of career choice. The author develops two alternative models of labor markets for college-trained manpower, the "cobweb" and "incomplete adjustment" models. Both models imply that, at the margin, a certain number of students make current career-related enrollment decisions based on current salaries. In the cobweb model, enrollments and subsequent qualified new manpower in a field fully adjust to changes in current salaries at the beginning of a given time period. However, subsequent new manpower in the field is equal to the amount demanded at the end of the time period, leading to an oscillation of wages and enrollments over time. In the "incomplete adjustment" model, enrollments only partially adjust within the defined time period, resulting in wages that encourage further adjustment in the same direction in the next time period.

The author finds strong support for the applicability of the cobweb model to the bachelor of science in engineering, the field of accounting, and the MBA. The incomplete adjustment model is found to have strong support in application to the market for doctorates, chemists, and mathematicians. The empirical support for both models is strong evidence in favor of the hypothesis that education is an investment. Professor

Theodore W. Schultz has also argued that these findings support the hypothesis that educated individuals tend to respond more readily than uneducated individuals to the changes in opportunities represented by disequilibria in markets. Subsequently the author applied these models to other professions in a number of excellent articles, including: "Labor Market Adjustments in Psychology" (*American Psychologist*, Vol. 27, No. 5, 1972, pp. 384-93); "Legal Cobwebs: The Changing Market for Lawyers" (*Review of Economics and Statistics*, Vol. 57, No. 2, 1975, pp. 171-9); and "Supply and Salary Adjustments to the Changing Science Manpower Market: Physics, 1948-1973" (*American Economic Review*, Vol. 65, No. 1, 1975, pp. 27-39).

The book contains a number of additional related studies. An analysis of the effects of stipends and starting wages on the amount of time and competition involved in Ph.D. programs is presented. Also included is a valuable analysis of institutional behavior in hiring faculty that includes a structural model of the labor market for faculty. A survey of student attitudes and expectations about career choice is described and interpreted. The author also discusses the implications of his research for public policy.

See also: 18:6.0/74-2 **Higher Education and the Labor Market,** Margaret S. Gordon, ed.

2.0 INCENTIVES AND FACULTY AND INSTITUTIONS

2.1 Interactions Between Institutions and Students

3.2.1/80

"An Econometric Model of Higher Education," John M. Abowd, *Managing Higher Education: Economic Perspectives*, pp. 3-56 (The Center for Management of Public and Nonprofit Enterprise, Graudate School of Business, University of Chicago, Chicago).

This monograph by John Abowd is a less technical description of his 1977 study of the U.S. market for higher education, which is abstracted below (3:2.1/77).

3:2.1/77

An Econometric Model of the U.S. Market for Higher Education, John M. Abowd, 134 pp. (Industrial Relations Section, Princeton University, Princeton, N.J.).

An important characteristic of higher education is the diversity of colleges and universities. Previous researchers have not modeled the higher education market in such a way that the diversity of higher education institutions is behaviorally determined. Abowd accomplishes this by applying a theoretical model of implicit markets to higher education as developed by Sherwin Rosen ("Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition," *Journal of Political Economy*, 82, January/February 1974, pp. 34-55). According to Abowd, "Competition at each point on the quality spectrum determines the price as a function of quality and the distribution of (buyers and sellers) along the quality choices."

PP

Abowd specifies an enrollment demand distribution as the number of enrollees who demand schooling at quality levels "less than or equal to a given level for each positive level of quality." The enrollment supply distribution gives the number of enrollment places supplied by quality levels less than or equal to a given quality levels he maintains. Both relationships are functionally related to the **market relationship** between tuition and quality, which "induces the enrollment demand distribution and the enrollment supply distribution to be **coincident** along the quality spectrum."

In Abowd's model, **institutions'** optimal enrollment and quality decisions determine the supply distributions. When there is excess demand in a quality interval, "equilibrium in the quality differentiated market is determined by competition among students for enrollment places. Alternatively, when a quality interval **is characterized** by excess supply, there is competition for students. This scheme is modified to permit some rationing among the very high quality public and private schools."

The author's theoretical development of his model provides advances both in the theory of enrollment demand and of institutional supply behavior. His theory does not necessarily require his perhaps implausible assumptions that institutional objective functions emanate from trustees rather than faculty; alternative objective functions giving more weight to faculty research and faculty benefits could be used. His model is estimated using cross-sectional data from 8 years of the U.S. Office of Education publications *Opening Fall Enrollment* and *Higher Edcuation General Information Survey*. These data permitted a measure of the quality of an institution's undergraduate offerings that increases with revenues devoted to instruction. Also, if other activities (e.g., research) increase, the measure of quality increases. The measure decreases if undergraduate enrollment increases. Nevertheless, the quality measure, a variant on instructional expenditures per student, is not implied by the Rosen model. [See William S. Reece, "A Theoretical Framework for Educational Output Measurement" (unpublished manuscript) for a measure of quality that is implied by the Rosen model.]

The author's empirical results include histograms for tuition, enrollment, and quality, and estimates of market relationshps between tuition and quality that were used in interpretation of the equilibrium of the higher education market. His empirical results on institutional supply are more

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useful than his empirical results on enrollment demand because of the lack of information on individual students in his data base. Differential effects on institutional behavior of lump-sum and enrollment-related subsidies also are shown.

2.2 Measures of Existing Incentives on Faculty

3:2.2/81

Expected Interruptions in Labor Force Participation and Sex Related Differences in Earnings Growth, Yoram Weiss and Reuben Gronau, 30 pp. (National Bureau of Economic Research, Cambridge, Mass.)

This paper presents an important theoretical development that should contribute to future efforts to estimate faculty earnings functions. In this paper, the authors develop a model in which a married woman's earnings and labor force participation are jointly determined. Wages and participation are related via investment in human capital on the job, so that "participation affects future wages which in turn affect future participation." These investment opportunities, along with wages and home productivity, determine labor force participation. Home productivity is assumed to increase with the birth of a child and decline as the child grows older. Thus, the productivity of her human capital at home competes with the labor market throughout a woman's career, and a choice between the two alternatives at a given time period affects earnings in subsequent time periods.

The authors' model provides a number of insights on the problems of making inferences about discrimination. They point out: "If withdrawals from the labor force are partially endogenous, standardization for differences in work history will underestimate the full effect of discrimination on earnings differences." Also: "If women expect longer breaks in their work career, their reduced investment in human capital should not be confined exclusively to investments on the job. Schooling will also be reduced. If one admits the possibility that the interruptions may be due to discrimination, a standardization for schooling in comparing male-female earnings differences yields an underestimate of the full impact. One may also question the legitimacy of the comparisons of earnings of women and men with the same level of schooling on the grounds of selectivity bias. Expecting an interrupted work career, women will invest in schooling as much as men, only if they are more efficient investors."

3:2.2/78

"Why Women Earn Less: The Theory and Estimation of Differential Overqualification," Robert H. Frank, *American Economic Review*, Vol. 68, No. 3, pp. 360-373.

This study's relatively solid theoretical basis makes it relevant to future research on faculty earnings functions even though it deals with male-female earnings differentials for all occupations. The author hypothesizes that families tend to give greater account to the husband's career than to the wife's in their geographical location decisions when they expect the husband to spend more time in the labor force. Women are consequently more likely to be geographically constrained and must often settle for positions for which they are overqualified.

In an imaginative empirical test, Frank found that the salaries of equally educated and experienced wives are smaller when they and their husbands reside in smaller communities. Because it is often necessary to migrate in order to obtain a preferred academic position, Frank's hypothesis should be tested for academic labor markets. As Frank points out: "The identification and disentanglement of . . . possible effects in the estimate of the unexplained residual in the male-female differential will have to await the development of more comprehensive data and better methods of analysis, but at least a much clearer picture of their combined total size should be made possible by eliminating the effects of locationally determined overqualification differentials."

3:2.2/76

Publication, Teaching, and the Academic Reward Structure, Howard P. Tuckman, 122 pp. (Lexington Books, Lexington, Mass.).

This book is probably the best starting point from which to learn about the estimation of earnings functions for college and university faculty. It is exceptionally well-written and accessible to nontechnical readers.

Earnings functions for faculty usually relate levels of faculty salaries to variables such as publications, education, and experience. Because these functions can be estimated according to the faculty member's sex and race, there is an interest in using these data to test hypotheses about discrimination. Tuckman explains that, unfortunately, this is not a valid use of faculty earnings functions for two reasons. First, it is impossible to control for all of the important causal influences on faculty earnings, including the quality of the faculty member's work and the faculty member's preferences. Second, when coefficients in a faculty earnings function combine supply and demand influences, the separate influences cannot be determined.

Chapter 2 is devoted to a discussion of existing research that clearly points out the alternative approaches now taken to the specification and estimation of faculty earnings functions. Chapter 3 provides a theory that underlies the author's estimates cited in later chapters. The discussion includes a figure depicting the academic labor market. There is, however, insufficient discussion of the implication for estimation of many important aspects of institutional demand and individual faculty supply behavior. In particular, how would one control for a faculty member's experience, options, and quality of research and publications? In regard to institutional behavior, how would one control for political behavior in the determination of salaries when colleagues evaluate one another? How would one control separately for demand and supply influences?

Chapter 4 is devoted to issues related to using faculty earnings functions to deal with possible discrimination. The author explains a number of possible misuses of earnings functions in this context. However, a number of problems are not discussed; most importantly the need for a testable theory of discrimination in academia with explicit tests of the theory. (For a theoretical discussion of causal determinants of discrimination, see Joseph E. Stiglitz, "Approaches to the Economics of Discrimination," *American Economic Review*, Vol. 63, No. 2, pp. 287-295. Also see Kenneth J. Arrow, "The Theory of Discrimination," *Discrimination in Labor Markets*, Orley Ashenfelter and Albert Rees, eds., Princeton, N.J.: Princeton University Press, 1963.) Without such a theory and in the absence of measures of quality, preference, and other important influences on faculty earnings and of the capability to separately estimate demand and supply influences on earnings, the attribution of unexplained differences in salaries (e.g., between men and women) to discrimination is subject to major error.

Chapter 5 thoughtfully discusses the problems a university faces in making choices between uniform salary structures and differentiating salary structures by field. Chapter 6 provides a number of calculations of returns to the faculty member from publication, as well as the effect of reward structures on faculty allocation of time. Chapter 7 contains a discussion of the appropriateness of economic incentives on faculty.

Future research on faculty earnings functions will probably be based on hedonic wage equations. For an application of hedonic wage equations, see Robert E.B. Lucas, "Hedonic Wage Equations and Psychic Wages in the Returns to Schooling," *American Economic Review*, 67, September 1977, pp. 549-558. A recent application to an academic labor market is provided by Edward S. Pearsall, "An Hedonic Price Model of the Academic Labor Market: An Application to Ph.D. Biologists," unpublished paper, Department of Economics, The George Washington University, 1981.

3:2.2/74

"The Earnings and Promotion of Women Faculty," George E. Johnson and Frank P. Stafford, *American Economic Review*, Vol. 64, No. 6, pp. 888-903.

This paper illustrates the difficulty in using reduced form earnings functions to make separate inferences about supply and demand influences on differential earnings of female and male faculty. The authors point out that, "Male-female differences in salaries are often attributed to discrimination; an alternative explanation is that the differential is primarily generated by the market's reaction to voluntary choices by females with regard to lifetime labor force participation and on-the-job training."

In the authors' model, it is assumed that female academics make smaller investments in their careers in anticipation of dropping out of the labor force or working part-time to raise children. In particular, the authors argue that female academics are likely to forego opportunities to take lower paying positions at prestigious institutions that would enable them to develop skills from association with senior colleagues. Without such skills, subsequent salary growth is smaller. The authors suggest that women's reentry to the labor force, after their childrearing years, is relatively permanent and their careers begin to catch up with those of men.

The authors' reduced form earnings function includes experience, whether one's Ph.D. is from a top-ten program, and noncitizen and female status. They take separate account of pre- and postdoctoral experience, and the postdoctoral experience variables and squares of these variables are interacted with female status as well as entered separately. The squared terms were introduced to test for the hypothesized earnings profiles. Specifically, the authors expected and found in a cross-sectional sample that, for females, experience had a negative effect and experience squared had a positive effect (significant in only half the fields studied) that becomes offsetting, presumably after the childbearing years.

Myra H. Strober and Aline O. Quester ("The Earnings and Promotion of Women Faculty: Comment," *American Economic Review*, Vol. 67, No. 2, pp. 207-13) suggest that Johnson and Stafford's coefficients on experience might simply be measuring the time profiles of salary discrimination. They point out that since such an interpretation is possible, Johnson and Stafford should have presented independent evidence on "(a) initial job preference patterns of women Ph.D.'s; (b) starting salary differentials between prestigious (i.e., human capital-building) institutions; and (c) drop-out and reentry patterns of women in academic positions." Strober and Quester present some evidence on these variables that supports their position; most importantly, they show that only a minority of academic women drop out of the labor force and that the median length of time for those that do is only 14 months. However, in a reply ("The Earnings and Promotion of Women Faculty: Reply," *American Economic*

Review, Vol. 67, No. 2, pp. 13-17), Johnson and Stafford cite comparative census data showing that women academics are considerably more likely than men to be out of the labor force. Strober and Quester also point out the importance to a potential labor force reentrant of the type of contacts that can be established at a prestigious institution.

The ambiguities pointed out by Strober and Quester conceivably could be overcome with more refined data on work histories of academic personnel and with independent tests of the assumptions of Johnson and Stafford's theory. However, the experience variables could nonetheless represent influences on demand as well as reflect supply behavior. Thus, future efforts to make inferences about supply should be based on actual supply relationships rather than reduced from earnings function.

Using longitudinal data, Stephen Farber ("The Earnings and Promotion of Women Faculty: Comment," *American Economic Review*, Vol. 67, No. 2, pp. 199-206) was able to control directly for whether an academic was working full time at an NSF biennial census year. He found a strong effect of such status on subsequent earnings and thus generally supported Johnson and Stafford's main conclusion. However, his results differ in a number of respects. For example, he found that predoctoral experience is positively related to postdoctoral salary increases. An object of future research will be to resolve these differences.

2.3 Issues in Altering Incentives on Faculty and Institutions

3:2.3/76.1

Education As an Industry, Joseph N. Froomkin, Dean T. Jamison, and Roy Radner, eds., 489 pp. (Ballinger Publishing Co., Cambridge, Mass.).

This book contains 11 papers given at a 1971 conference, "Education As an Industry," sponsored by the National Bureau of Economic Research at the University of Chicago.

The first part of the book deals with educational production. The first paper, "The Ph.D. Production Process," by David W. Breneman, summarizes his important study of departmental behavior in granting Ph.D.'s. Assuming that academic departments maximize prestige and that a department's prestige is influenced by the prestige of the departments in which its Ph.D. graduates are placed, he provides empirical support for the hypotheses that academic labor markets and university budgetary policies relating departmental budgets to enrollments (rather than graduates) explain departmental differences in average time of candidacy and in student attrition.

In a paper by Dennis J. Dugan, "Scholastic Achievement: Its Determinants and Effects in the Education Industry," variables measuring effects on potential students "of the home, school and community" are found to influence not only actual enrollments but also earlier aspirations and enrollment plans. The author also analyzes admissions decisions by colleges, and some of the determinants of scholastic achievement.

"Graduation, Graduate School Attendance, and Investment in College Training," by Lewis J. Perl, describes studies of college graduation as a function of variables for student financial status (including time spent working while in college), ability measures for the collegiate student body, and characteristics of the institution (including expenditures per student) on instructionally-related activities and on "research and extention." Findings are interpreted to represent institutional production behavior, although they may in fact represent continuing enrollment demand.

The final paper on educational production is Henry M. Levin's "Concepts of Educational Efficiency and Educational Production," which discusses a number of theoretical problems in the interpretation of estimated educational production functions—such as differences in production technique and in preferences of participants in the educational process. The author also makes the point that when these functions differ, "Optimal factor proportions will vary from firm to firm, and a uniform adoption for the industry will reduce allocative efficiency."

The second part of the book contains two papers on compensatory education. "Cost Performance of Computer Assisted Instruction for Education of Disadvantaged Children," by Dean T. Jamison et al., evaluates three computer-assisted instructional programs for disadvantaged students: elementary arithmetic, initial reading, and computer programming for high school students. The authors evaluate achievement and, using Gini coefficients and other measures, evaluate the degree to which disadvantaged students closed the statistical gaps between themselves and others. The other paper, "A Study of the Relationship of Instructional Process and Program Organization to the Success of Compensatory Education Projects in California," by Herbert J. Kiesling, applies a production function approach to evaluate compensatory education projects.

The third part of the book, devoted specifically to higher education, contains four papers. "Demand for Higher Education in the United States: A Second Progress Report" provides a large portion of the major study of enrollment demand presented in Roy Radner and Leonard S. Miller, *Demand and Supply in U.S. Higher Education* (3:1.1/75). June O'Neill's well-known work on productivity in higher education is presented in "Productivity Trends in Higher Education." An interesting paper by Robert M. Oliver and David S.P. Hopkins, "Instructional Costs of University Outputs," provides an alternative methodology for calculating higher eduation costs in which the unit of cost is a cohort of students over their entire careers in an institution. "Faculty-Student Relations in U.S. Higher Education" presents Roy Radner's important study of these ratios and related institutional behavior. (See annotation of Radner-Miller volume, 3:1.1/75.)

The book concludes with a thoughtful discussion by Joseph N. Froomkin of "Policy Issues in the Education Industry." The author evaluates the concept of educational production functions and argues "that a better understanding of learning theory may contribute to the building of more realistic educational production functions."

3:2.3/76-2*

University Costs and Outputs, Studies on Education, Vol. 6, Donald Verry and Bleddyn Davies, 277 pp. (Elsevier Scientific Publishing Co., New York).

This book, an economic study of British universities, is the most thoughtful empirical study of production within higher education to date, and probably is as successful as possible in quantifying production in higher education. Thus, the reader can use it in part to judge the potential of production information to validly inform central university decision-making.

The authors developed a straightforward economic theory of university production. From their theory, they derived both production functions that express relationships among inputs and corresponding outputs, and unit cost functions that express each output's cash unit cost, given the level of output and the choice of combination of inputs used to achieve the output. These relationships take account of the possibility that research and instructional outputs can be produced more efficiently in conjunction with one another. To estimate the coefficients in their cost and production functions, the authors collected an enormous data base. Measures of inputs, outputs, and costs for instructional and research activities were constructed for most British universities' academic departments grouped into categories for arts, social sciences, mathematics, physical sciences, biological sciences, and engineering. Multivariate statistical analysis was used for the estimation, with a variety of different measures of variables and forms of mathematical specification of the cost and production functions.

The authors attempt to answer three questions with their estimated functions. First, are there economies of scale; i.e., when all inputs increase proportionately, do outputs increase more than proportionately? Second, what are marginal costs, as opposed to average costs, of production in higher education? Third, when are research and instructional activities performed more efficiently together than apart? Using interesting graphics, the authors provide estimates of marginal costs in comparison with average costs for different levels of output for each category or department. The answers to the first and third questions are inconclusive.

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* This annotation consists of portions of a book review by Stephen A. Hoenack, published in the *Journal of Higher Education*, Volume 49, No. 3, 1978, pp. 296-298.

In attaching meaning to the authors' empirical work, two issues should be kept in mind. The first is the validity of the measures used for inputs and outputs. The limited availability of data forced the authors to use extremely crude measures. The two measures of research outputs used were counts of articles and hours of faculty time spent on research, the latter being an input used as a proxy for output. The measures of instructional outputs used were numbers of students and the levels of degrees. Students' initial levels of achievement were controlled by average grades previously earned. Inputs attributed to each output included measures of faculty time based on questionnaire responses to surveys of faculty activity and data on other inputs, such as nonacademic staff, which were attributed to outputs proportionately with faculty inputs. An obvious problem with these measures is that their quality may vary.

The second important issue is the set of incentives that influenced the behavior underlying observed production activity. A major goal of examining production relationships is to learn about the most technically efficient modes of operation; it is crucial to be able to assume that observed behavior depends on strong incentives to be efficient. In highly competitive industries this assumption is usually realistic, but in higher education it is most questionable. A related difficulty is that incentives to give greater importance to one output than to another can create the appearance of inefficiency in the production of the other if inputs are not fully attributed to each output. Incentives are probably not uniform among universities, causing the production data to represent varying degrees both of inefficiency and relative importance of outputs. Although the authors compensated for this problem by omitting data on Great Britain's most prestigious research institutions, incentives surely must vary substantially among the remaining institutions.

See, by the same authors, "Cost Functions for University Teaching and Research," *Economic Journal*, Vol. 85, March 1975, pp. 55-74.

3:2.3/74

Efficiency in Universities: The La Paz Papers, Keith G. Lumsden, ed., 278 pp. (Elsevier Scientific Publishing Co., New York).

This book contains 11 papers by well-known economists on issues related to efficiency in universities. The papers are organized within four sections.

The first section, "The Role of the University," contains Kenneth J. Arrow's well-known paper, "Higher Education As a Filter" and Harry G. Johnson's "The University and the Social Welfare: A Taxonomic Exercise," a thoughtful discussion of the economic roles of a university's participants and clientele.

There are three papers in the second section, "The University As a Productive Unit." In "The University As a Multi-Product Firm," Donald V.T. Bear explores the appropriate centralization of decisionmaking authority and the various uses of information for university efficiency. "On the Measurement of Inputs and Outputs in Higher Education," by G.C. Archibald, and "Educational Production and Human Capital Formation," by Richard Attiyeh and Keith G. Lumsden, explores issues in quantifying production relationships in higher education. [Another reference to this topic is Donald Verry and Bleddyn Davies, University Costs and Outputs (3:2.3/176-2)].

Two papers constitute the third section, "New Techniques in Universities." In "The Cost-Effectiveness of the New Media in Higher Education," Richard Layard provides a cost-benefit analysis of alternative instructional techniques. Keith G. Lumsden quantitatively analyzes course evaluation determinants in terms of student characteristics and the importance attached by them to different aspects of courses.

The fourth section, "Financing University Education" includes a paper by William C. Brainerd titled "Private and Social Risk and Return to Education," which "analyzes the importance of access to perfect loan markets in a world of certainty" and deals with the effects of uncertainty on the attractiveness of investment in education. The remaining papers in this section, along with Richard Attiyeh's introductory essay, discuss a number of problems in using market incentives within universities. Attiyeh emphasizes issues in ensuring that basic research is properly priced. Melvin W. Reder, in "A Suggestion for Increasing the Efficiency of Universities," also discusses the pricing of research and suggests that by requiring students to pay extra for "high participation" options that involve heavy use of instructional time, a university could induce students to use this valuable resource economically. Paul H. Cootner provides an especially important discussion of the concept of economic efficiency in universities in "Economic Organization in the Modern University." Based on this discussion, the author evaluates the potential for use of the price system to improve efficiency.

For other discussions of economic efficiency and market incentives within universities, see: David W. Breneman, "Internal Pricing Within the University—a Conference Report" (Report P-24, Ford Foundation Program for Research in University Administration, Berkeley, California, 1971); John Dunworth and Rupert Cook, "Budgetary Devolution As an Aid to University Efficiency" (*Higher Education*, Vol. 5, No. 2, 1976, pp. 153-167; Stephen A. Hoenack and David J. Berg, "The Roles of Incentives in Academic Planning" (*Academic Planning for the 1980's*, New Directions for Institutional Research, No. 28, 1980, pp. 73-95); Stephen A. Hoenack, "Direct and Incentive Planning Within a University" *Socio-Economic Planning Sciences*, Vol. 11, No. 4, 1977, pp. 191-204; Stephen

A. Hoenack and Alfred L. Norman, "Incentives and Resource Allocation in Universities" (*Journal of Higher Education*, Vol. 45, No. 1, 1974, pp. 21-37); Richard Layard and Richard Jackman, "University Efficiency and University Finance" (*Essays in Modern Economics*, London: Longmans); Mark Nerlove, "On Tuition and the Costs of Higher Education: Prolegomena to a Conceptual Framework" in *Investment in Education: The Equity-Efficiency Quandry* (3:4.0/72).

An important economic analysis of faculty behavior in response to incentives is provided by William E. Becker, Jr., in "Perspectives From Economics: The Economic Consequences of Changing Faculty Reward Structures," one of the papers in *Academic Rewards in Higher Education* (26:3.1/79). The other papers in this volume present economic and noneconomic analyses of the issues in introducing incentives in universities.

Also, in a recent study (*The Economics of University Behavior*, Academic Press, 1980) David A. Garvin takes an alternative approach to that of analyzing the effects of incentives on academic personnel. He specifies a university's objectives as prestige and the quality and numbers of its students, and he proposes that universities maximize these objectives subject to the constraint that their revenues are greater than or equal to their costs. The author's model is useful in predicting aggregate trends in higher education, e.g., characteristics of private versus public institutions. However, it is much less successful in the analysis of behavior within institutions.

3:2.3/72

Economic Analysis for Educational Planning, Karl A. Fox, 376 pp. (Johns Hopkins Press, Baltimore, Md.).

This volume discusses, from an economic perspective, optimization models in which a decisionmaker's objectives and constraints are quantified, and provides calculations of actions that maximize achievement of the objectives. The book covers most of the advances in the postwar period in the design, interpretation, and computation of optimization models. Problems of using optimization models are discussed more thoughtfully than in most other sources. However, even here inadequate attention is given to the contexts in which these models are unlikely to be useful. Nevertheless, the quality of each chapter is superlative.

In the first chapter, Karl A. Fox provides an overview of issues in modeling behavior in nonmarket settings. Chapters 2 and 3, by Jati K. Sengupta, discuss and evaluate several types of optimization models and explore issues in interpreting optimality in nonmarket settings. The author also discusses intervention in internally established markets to achieve optimality; an approach to planning is thus derived.

Chapters 4 and 5, by T. Krishna Kumar, provide a rich discussion of issues of modeling behavior in an environment of decentralized decisionmaking, which is an important characteristic of much of education. The author discusses the concept of decomposition in behavioral models, and an application of this concept to educational systems is demonstrated. Chapter 6, by Sengupta, shows the different optimal solutions for alternative models using actual data from an academic department. In Chapter 7, Bikas C. Sanyal provides an overview of the actual practice of systems analysis in higher education, including the uses of simulation models to explore consequences of alternative decisions. In Chapter 8, based on experience in applying optimization models to units he has headed at Iowa State University, Fox discusses data problems in implementing these models and approaches he has used in measuring academic quality. In Chapter 9, Fox describes optimization models, including one employed for planning of extension services in Iowa, and his excellent and well-known work on departmental planning. In a final chapter, on areas of potential application, Fox states: "Although glamor may attach to models of whole universities and of national educational systems, the optimizing approach may prove to be most valuable at department and subdepartment levels."

3:2.3/64

Higher Education in the American Economy, Andre Daniere, 206 pp. (Random House, New York).

This book is the most comprehensive discussion of the potential role of pricing in higher education for the purpose of "increased well-being for American society at large." It is also, perhaps, the best available discussion of the appropriate involvement of government in higher education. As a measure of the quality of the book, if the author were to revise it, taking into account the large quantity of empirical research since the book was written, he would not need to alter much his behavioral analysis or policy recommendations. (An exception is the author's proposal that planners make projections of occupational manpower needs).

The book begins with an evaluation of the potential contribution of economics to policymaking, given the goals and constraints of the policy setting. Chapters 2 through 5 offer a comprehensive discussion of pricing in higher education, including the author's well-known advocacy of relating prices to costs. The author analyzes pricing in the presence of jointness in production and economies of scale, and discusses major imperfections in the higher education market, including absence of information and defective capital markets. Chapter 6 is a superb discussion of the major problem of correctly pricing research activities, particularly when research does not directly benefit any potential buyer such as the government and when research is produced jointly with instruction.

Chapters 7 and 8 systematically derive specific proposals for governmental involvement and planning in higher education to overcome imperfections in the higher education market. This is truly one of the least ad hoc discussions of higher education planning available. The author also summarizes many of his well-known policy recommendations, including: combining high tuition with subsidized loans; financing a broad, active, information and counseling program in "strategic" high school years; and partially or totally subsidizing the freshman year.

Chapters 9 and 10 evaluate, on grounds of economic efficiency, the existence of free public higher education and the co-existence of free public higher education and high-priced private higher education. (On the latter, see also Michael Clurman, "Does Higher Education Need More Money," *The Economics and Financing of Higher Education in the U.S.*, Washington, D.C.: U.S. Government Printing Office, 1969, pp. 632-651.) Chapter 11 is a further discussion of higher education planning in terms of regulating competition, and Chapter 12 is a discussion of efficiency in primary and secondary education.

3.0 INCENTIVES AND PUBLIC AND PRIVATE FUNDERS

3.1 Interactions Between Public and Private Funding

3:3.1/76

"Public Spending for Higher Education: An Empirical Test of Two Hypotheses," Charles T. Clotfelter, *Public Finance*, Vol. 31, No. 2, pp. 177-195.

This study presents estimates from a model in which separate equations appear for public expenditures on higher education and for individual demand for attendance in public institutions. The author intends that the public expenditures equation test two hypotheses about the nature of public spending: "welfare-maximization," in which a measure of outmigration of college graduates is argued to relate to a state's benefits of subsidizing higher education; and "fiscal illusion," in which measures of simplicity of the tax structure are argued to relate to the public's perceptions of costs of public services and, correspondingly, its willingness to pay for them.

Enrollments in public institutions appear in this equation as a determinant of public demand for higher education. The equation for individual demand for attendance in public institutions, i.e., the level of enrollments in these institutions, includes variables for average tuition in public institutions, a number of variables for the socioeconomic composition of the state, and a set of regional "dummy" variables. Average tuition in private institutions is not included in this equation, and the author apparently does not treat tuition in public institutions as determined within the model via the variable for public expenditures.

Results for the expenditure function provide modest support for both hypotheses. It was found that tuition charges in public institutions were not related to public expenditures on higher education. However, this result could be due to treatment of tuition charges as not determined within the model, to misspecification of the individual enrollment demand function, or both.

3:3.1/73

"The Effect of Government Subsidies-in-Kind on Private Expenditures: The Case of Higher Education," Sam Peltzman, *Journal of Political Economy*, Vol. 81, No. 1, pp. 1-27.

This study is a pioneering attempt to estimate the effects of public funding of higher education on private funding of higher education, and vice versa.

The author's theoretical discussion analyzes the behavioral effects of public tuition as a subsidy-in-kind. Empirical estimates are based on a two-equation cross-sectional model that explains total levels of per capita education and general expenditures (excluding organized research expenditures) in each state's public and private institutions. Explanatory variables include: per capita income (governmental revenue for public institutions, personal income for private institutions); high school graduates divided by population; estimates of outmigration of state residents to attend, respectively, public and private institutions; and, in each equation, the dependent variable in the other equation. These latter variables were used to estimate the effects of public on private funding and vice versa. For example, in the equation for private funding, the coefficient of public funding provided "an estimate of the dollar reduction in private-institution expenditures per dollar increase in expenditures at governmental institutions." The author found that this amount is about 60 cents, and, in an equation modified to exclude public funding of out-of-state students, the displacement rises to approximately 70 cents. The author also estimated equations for public and private enrollments in each state and found "that most government higher-education resources replace private resources with these resources being spread over somewhat more students."

A significant aspect of the Peltzman model is the aggregation of behavioral relationships. The relationship for public funding of higher education aggregates student behavior and governmental subsidy behavior. Similarly, the relationship for private funding aggregates behavior of students and private donors. An important next step in understanding interrelationships between public and private funding of higher education will be the development and estimation of models that treat these relationships separately.

3.2 Tax Policy and Donor Behavior

3:3.2/79

"Charitable Conributions: New Evidence on Household Behavior," William S. Reece, *American Economic Review*, Vol. 69, No. 1, pp. 142-151.

For annotation, see 3:3.2/75.

3:3.2/75

"The Income Tax and Charitable Contributions: Part II—The Impact of Religious, Educational and Other Organizations," Martin Feldstein, *National Tax Journal*, Vol. 28, pp. 209-226.

Since donations to higher education institutions are a major source of their income, the influence of government on these donations forms an important part of higher education policy. Martin Feldstein's study is a pioneering attempt to estimate the effects of income and price (including tax deductibility) on charitable giving. He employed a set of data published by the Internal Revenue Service in 1962, which provided itemized charitable contributions in 17 adjusted gross income classes for educational institutions and four other classes of charities. Unfortunately, the educational institutions category includes elementary and secondary, as well as higher education. However, it is likely that the bulk of giving in this category is to colleges and universities. The author found that both income and price have large and statistically significant effects on charitable giving to educational institutions.

One data problem that Feldstein had was the need to measure price "by using the 1962 marginal tax rate for a joint return with the average taxable income in class i." As a result, "with a single year's cross-section sample of aggregate data, the price is functionally related to taxable income." The author dealt with this problem imaginatively; however, he posits that there may remain an overestimate of the price elasticity.

In another study, (3:3.2/79), William S. Reece employed data from the Bureau of Labor Statistics' Consumer Expenditure Survey and was able to obtain variation in the price variable independent of the income variable via individual tax rates in the state of residence of the donor, as well as by including nontaxable income in the income variable. Reece found a statistically insignificant effect of the price variable for contributions to educational institutions. However, Reece's data include households having incomes up to $40,000; Feldstein's IRS data show that a major portion of giving to educational institutions occurs at higher incomes.

4.0 ECONOMIC IMPACT OF HIGHER EDUCATION ON STUDENTS

3:4.0/80

"Sibling Models and Data in Economics: Beginnings of a Survey," Zvi Griliches, *Journal of Political Economy*, Vol. 87, No. 5, pp. 537-564.

For annotation, see 3:4.0/77-1.

3:4.0/79-1

"Testing the Education Screening Hypothesis," John G. Riley, *Journal of Political Economics*, Vol. 87, No. 5, pp. 5227-5252.

For annotation, see 3:4.0/74.

3:4.0/79-2

The Economics of Education, Elchanan Cohn, 451 pp. (Ballinger Publishing Co., Cambridge, Mass.).

This book is the most comprehensive single source on the literature of the economics of education, and much of this literature is interpreted in an extremely interesting discussion.

The book enables one to become readily acquainted with the vast literature on a number of topics. Separate chapters are presented on: education and human capital in the history of economic thought; benefits of education; costs of education; benefit-cost analysis; education and economic growth; production and cost functions in education; teachers' salaries; financing education; and educational planning. Separate discussions pertaining to elementary and secondary education and higher education are presented within each chapter.

Perhaps of most interest to researchers on higher education issues are the thoughtful discussions of research on production and cost functions, on the benefits of higher education (including those that accrue to other than the educated individual), and on earnings functions and the cost-benefit analyses based on them. In addition to covering research on the topics themselves, the volume summarizes the critical evaluation of research on each topic. The coverage of the research controversies is thorough and insightful, and the author often points out important policy issues related to these disagreements. There is also a valuable discussion of educational planning, although this presentation does not deal with the possible uses of incentives in planning or with the (often unintended) behavioral incentives implicit in centralized planning mechanisms.

Professor Cohn is to be commended for producing a volume of substantial use to professionals in so many areas of education. In particular, the comprehensiveness and excellent writing make this volume indispensable to economists and planners working on education policy at the elementary, secondary, and postsecondary levels.

3:4.0/77-1

"Estimating the Returns to Schooling: Some Econometric Problems," Zvi Griliches, *Econometrica*, Vol. 45, No. 1, pp. 1-22.

Zvi Griliches' 1977 paper provides an important discussion of the possible causality underlying estimated "earning functions," which relate earnings to years of schooling and other variables. The author gives particular attention to earning ability as a causal influence separate from schooling and to how failure to control for ability can lead to overestimates of the effect of schooling on earnings.

The author outlines two extreme views: one in which test scores may be regarded as measures of ability, and another in which ability includes independent causal influences such as "energy" or "motivation." The author suggests a middle ground where ability relates to test scores and family background variables. A structural model is proposed that includes an equation for ability as a function of test scores and family background, equations for interrelationships between test scores, ability, and schooling, and an earnings function relating earnings to schooling and instruments for ability, including alternative test scores. Estimates of an abbreviated version of this model based on data from the National Longitudinal Survey show a somewhat smaller effect of schooling on earnings when the ability measures are included in the earnings equation. When the model is expanded to include schooling as an endogenous variable, it provides substantially higher estimates of the effect of schooling on earnings.

While this study goes considerably beyond similar efforts, the author emphasizes many important problems not dealt with in his model. These include the role of on-the-job training and experience, consumption benefits of schooling, and nonmonetary returns to schooling. On these three topics, respectively, see Sherwin Rosen, "Learning and Experience in the Labor Market" (*Journal of Human Resources*, Vol. 7, Summer 1972, pp 327-342); Edward Lazear, "Education: Consumption or Production?" (*Journal of Political Economy*, Vol. 85, May/June 1977, pp. 569-597); and Robert E.B. Lucas, "The Distribution of Job Characteristics" (*Review of Economics and Statistics*, Vol. 56, November 1974, pp. 530-540). Another attempt to deal with the omitted variable problem is Gary Chamberlain, "Education, Income and Ability Revisited" (*Journal of Econometrics*, Vol. 5, 1977, pp. 241-257). However, the work of Paul Taubman (see 3:4.0/76-2) strongly suggests that available instruments for ability and family background are unreliable. Also, Stephen P. Dresch and Adair L. Waldenberg have provided a human capital investment model that treats test scores as an endogenous variable that is jointly determined with schooling decisions. This model and some preliminary empirical tests are provided in "Labor Market Incentives, Intellectual Competence and College Attendance" (Institute for Demographic and Economic Studies, March 1978, to be published by JAI Press).

In a 1980 paper (see 3:4.0/80), Griliches specifically evaluates those studies of the effects of schooling on income that employ sibling data.

3:4.0/77-2

"Economics of Education: An Assessment of Recent Methodological Advances and Empirical Results," George Psacharopoulos, *Social Science Information*, Vol. 16, No. 3, pp. 351-371.

This article presents a survey of empirical research on the economics of education that could be helpful as a first reading on the topic. Only part of the research discussed is on higher education per se. However, much of the discussion of other parts of the education sector (e.g., on returns to elementary and secondary education relative to higher education) is likely to be of interest to the higher education planner.

The survey summarizes: (1) recent shifts in emphasis in research, including issues related to income distribution; (2) sociological tools used by economic researchers; (3) major results on the economic effects of schooling (without discussion of possibilities for spurious attribution of earnings to schooling)—e.g., that "the social profitability of education is higher at the lower levels of education, especially in less developed countries," "education does not act simply as a screening device," and "IQ as usually measured, has a small effect on earnings"; (4) the author's interpretation of the policy implications, including "Stop the elaboration of global, long-range educational plans and concentrate on specific short term projects"; and (5) suggestions by the author of likely fruitful and unfruitful topics for future research.

The author concludes that "research activity (should concentrate) on how to produce flexible men to fit an ever-changing society."

3:4.0/76-1

"Human Capital Theory: A Slightly Jaundiced Survey," Mark Blaug, *Journal of Economic Literature*, Vol. 15, No. 3, pp. 827-855.

In some respects, this article is already outdated. However, it is probably the best source for an evaluation of existing research on the economics of human capital, including the economics of higher education. The article is also a useful survey of existing research.

Based on work of Imre Lakatos, the author characterizes research on human capital as a "scientific research program" with a "hard core" and a "protective belt." The former represents the basic concept of human capital as that in which "people spend on themselves in diverse ways, but for the sake of future pecuniary and nonpecuniary returns." The latter represents the particular testable human capital theories on which research has been done. The author also makes a distinction between a "progressive" research program in which theories predict "novel hitherto unexpected facts" and a "degenerating" research program which "accommodates" whatever new facts become available by endless additions of ad hoc 'epicycles.'" Much of the author's evaluative discussion is organized around these distinctions.

The author evaluates four specific research areas. The first is the demand for schooling, including the demand for study in specialized fields. He argues that insufficient research has been done on this topic and that much of existing research has failed to account for instructional supply behavior. Regarding the second area—the supply of and demand for labor training—the author argues that existing research fails to "separate appreciation of human capital over time due to costless learning-by-doing from appreciation due to costly self-improvement by workers. . . ." He also states that it remains to "square the picture of workers choosing between jobs with different earning-learning ratios with the notion of firms jointly producing goods and services for their customers and giving learning opportunities to their employees." (This issue had been analyzed by Sherwin Rosen in an article cited under 3:4.0/77-1.) The third research area discussed is the calculation of private and social rates of return. The author points out the failure of human capital theory to adequately explain differences in returns: "The steadfast refusal to exploit these anomalies in a further boost of fruitful theorizing is perhaps the best indication we have that the human-capital research program may indeed have started to 'degenerate.'" The fourth research area is estimates of earnings functions. It is argued that "An earnings function is a reduced form equation and in the absence of estimated structural coefficients of the underlying simultaneous-equation model, we have every reason to suspect that the coefficients of the single equation are biased." The problems with use by researchers of proxy variables to control for "ability" in earnings functions are also pointed out, along with the failure of most researchers to use longitudinal data.

The author evaluates the relationship of the screening hypothesis to human-capital research. He concludes that: "In all likelihood, the human-capital research program will never die, but will gradually fade away to be swallowed up by the new theory of signaling, the theory of how teachers and students, employers and employees, and indeed all buyers and sellers select each other when their attributes matter but when information about these attributes is subject to uncertainty. In time, the screening hypothesis will be seen to have marked a turning point in the 'human investment revolution in economic thought,' a turning point to a richer, still more comprehensive view of the sequential lifestyle choices of individuals."

3:4.0/76-2

"Earnings, Education, Genetics and Environment," Paul Taubman, *Journal of Human Resources,* Vol. 11, No. 4, pp. 447-461.

This study is by far the most important attempt to estimate the effects of schooling on income. The author uses a superior data base and, with the estimates it permits, casts doubt on all earlier research on this topic.

The data include a sample of 2,468 pairs of twins, which permits control for genes and family background. "When we regress differences in brothers' earnings on differences in schooling, we hold constant (by eliminating) those abilities that are common to the brothers. For fraternal twins, we eliminate skills produced by the common or family environment, while for identical twins we eliminate common environment and skills based on genetic endowments." The sample also permitted the author to estimate the variance of earnings attributable to the "sum and the separate effects of genetic endowments and common (family) environment and the extent to which this variance is attributable to non-common environment." (See also Paul Taubman, "The Determinants of Earnings: Genetics, Family, and Other Environments: A Study of White Male Twins," *American Economic Review,* Vol. 66, December 1976, pp. 858-870.

The author's estimates of earnings functions based on data from the sample but without the feasible controls for genes and family background yield results similar to those obtainable from Census data. The addition of proxies for family background similar to those used in other studies reduces the coefficient on schooling by about 12 percent. However, the introduction of the controls for genetics and family background permitted by the sample reduces the coefficient of schooling by two-thirds. This result casts considerable doubt on all earlier estimates of the effects of schooling on income.

Zvi Griliches proposes that the smaller schooling coefficient obtained with identical twins could result from errors in the measurement of schooling. (See "Sibling Models and Data in Economics: Beginnings of a Survey," *Journal of Political Economy,* Vol. 87, No. 5, Part 2, pp. 537-574.) However, Griliches' illustrative results depend on the assumption that his estimate using early occupation as an instrument for schooling is "true."

Arthur Goldberger has criticized on three grounds the use of data on twins to estimate components of variances of earnings due to genetic and other factors. (See "The Genetic Determination of Income: Comment," *American Economic Review*, Vol. 68, December 1978, pp. 960-969; Taubman's reply follows on pp. 970-976.) To identify the equations used for estimating variance components, it is necessary to assume that there is random mating, that the correlation of environmental characteristics is the same among identical and fraternal twins, and that fraternal twins' genes do not affect each other's environments. Even under these assumptions, it was necessary for Taubman to assign arbitrary values to the environmental correlation for identical twins. Goldberger argues that these assumptions are arbitrary and that Taubman's results are sensitive to variation in them under particular circumstances. He also shows several alternative models that yield the result that individual fraternal twins' environments are correlated with their siblings' genes, contrary to Taubman's assumption. Finally, Goldberger argues that the use of twins for income variance decomposition is not useful in policy formulation, which should be based on estimated marginal effects of actual policies, for example, coefficients on schooling in reduced form earnings equations. However despite possible biases due to environmental-genetic correlations, it appears that data on twins may offer the only hope of controlling adequately for major biases in the estimation of such coefficients.

In regard to Goldberger's other criticisms, Taubman, in his reply, explains how the importance of the assumption about identical environmental correlations for identical and fraternal twins depends on the policy context in which estimated variance components might be used. Some recent analysis of parental behavior in allocating resources among multiple children is a step toward reducing the arbitrariness of some of Taubman's assumptions. (See Jere R. Behrman, Robert A. Pollak, and Paul Taubman, "Parental Preferences and Provision for Progeny," Department of Economics, University of Pennsylvania, November 1980.)

In this reviewer's opinion, there is little alternative to use of data on twins so long as there is interest in estimating the effects of schooling and other policy variables on earnings.

3:4.0/75-1

"Demography, Technology, and Higher Education: Toward a Formal Model of Educational Adaptation," Stephen P. Dresch, *Journal of Political Economy*, Vol. 83, No. 3, pp. 535-569.

This study is a major contribution to the economics of higher education for two reasons. First, it provides a basis grounded in economic theory for the evaluation of long-term trend forecasts of enrollments, such as those provided by the National Center for Education Statistics and the Carnegie Commission on the Future of Higher Education. Second, the study provides a basis for understanding the sources of instability of economic returns to higher education and permits forecasting changes in these returns.

The author's model makes the simplifying assumptions that the labor force and the population between the ages of 24 and 65, referred to as the Active Adult Population (AAP), are identical, and that the educational composition of the AAP can be characterized as (college) educated and (college) uneducated individuals. A production function, incorporating assumed effects over time of technical change, posits relationships between these two categories of labor and aggregate output. Given the educational composition of the AAP, the production function determines "the current wage differential on the basis of relative endowments of educated and uneducated labor." Under the assumption that the educational characteristics of cohorts entering into the labor force are determined by educational wage differentials in prior periods, and under assumed labor supply relationships, the relative numbers of educated and uneducated individuals in the next entering cohort are determined. Given assumed death and retirement rates, persons leaving the AAP characterized by age and education are also determined. Thus, the model permits forecasts of the educational characteristics of the AAP and corresponding wage differentials in each future period. An important characteristic of this model is that, through use of a production function, the total stock demands and supplies for educated and uneducated manpower adjust to equilibrate the labor market. This is in contrast to Richard Freeman's forecasting model (see 3:1.2/76, *The Over-Educated American*) in which the flow of new, educated manpower adjusts to equilibrate the labor market.

The author provides simulations of the actual and equilibrium future educational composition of the AAP and future entrants into the AAP for each year to 2005. Differences between the actual and equilibrium educational compositions of the AAP can result from the lags implied by entry of educated individuals into the labor force in response to past wages. However, these lag effects are considerably "magnified by the succession of expanding and contracting entering (and exiting) cohorts" based on the age composition of the population.

Enrollment projections were derived from projected future entrants into the AAP. The author's model suggests a decline of enrollments of 33 percent over the 1970-2000 period, compared with the Carnegie Commission projections of enrollment increases of between 50 and 90 percent. The author recognizes that some of the difference is attributable to the fact that the Carnegie Commission projection includes assumed increases in continuing education enrollments. However, the large disparity between the author's projections and trend projections strongly suggests that further refinement on Dresch's educational adaptation model could be important both in educational policymaking and in guiding research on the economics of higher education. Some aspects of this model have already been refined. A revision with an "ability-related" equilibrium wage relative and a cost-of-education function is presented in Dresch's, "Ability, Fertility, and

Educational Adaptations" (*Research in Population Economics*, Vol. 1, Julian L. Simon, ed., Greenwich, Conn.: JAI Press, 1977). This study permits simulation of the effects of the ability distribution of the population on the supply of educated labor.

Dresch's model contains a much more careful specification of important behavioral relationships than most comparable forecasting models, and it permits simulation of short- and long-term effects of many policy variables. For these reasons, it is surprising that his model is not more widely used by researchers and policymakers.

3:4.0/75-2

Education, Income and Human Behavior, F. Thomas Juster, ed., 438 pp. (McGraw-Hill Book Co., New York).

This two-part volume brings together papers that deal with a variety of aspects of the economic impacts of education on students.

Part One contains eight papers dealing directly or indirectly with monetary returns to education. In "Mental Ability and Higher Educational Attainment in the Twentieth Century," authors Paul Taubman and Terence Wales address the important issue of "determining the relationship between the percentage of high school graduates entering college and their mental ability at the time of college entrance." The authors found that average ability of entering freshmen increased during the upsurge of postwar enrollments. Jacob Mincer's "Education, Experience and the Distribution of Earnings and Employment: An Overview" provides in three parts "a summary of recently completed research on the relation between the distribution of earnings and the distribution of investments in human capital," an examination of "the effects of human capital investment on the distribution of employment," and a discussion of "the effects of secular trends in education on the structure and inequality of both individual and family income."

Two papers, "Education As an Investment and a Screening Device" by Taubman and Terence Wales and "Ability and Schooling As Determinants of Lifetime Earnings, or If You're So Smart, Why Aren't You Rich?" by John C. Hause, are pioneering attempts to control for ability in measuring the effects of schooling on earnings. [Recent advances in controlling for ability in earnings functions include those by Zvi Griliches (3:4.0/77-1) and Paul Taubman (3:4.0/76-2).] A paper by Paul Wachtel, "The Returns to Investment in Higher Education: Another View," takes into account college costs in evaluation of returns to higher education. [For a broader treatment of college quality in earnings functions, see Lewis Solmon, "The Definition of College Quality and Its Impact on Earnings" (*Explorations in Economic Research*, Vol. 2, No. 4, 1975, pp. 537-587).] In "Education and the Allocation of Women's Time," Arleen Leibowitz analyzes relationships between education and the way women allocate their time, such as between child care and the labor market. Sherwin Rosen, in "Measuring the Obsolescence of Knowledge," examines the offsetting effects of learning and of depreciation through obsolescence of the educational capital of an individual over his lifetime.

Part Two of the volume deals with the effects of schooling other than cash earnings. Three papers deal with effects of education on consumer saving and consumption behavior. These are: "Educaton and Consumption" by Robert T. Michael (see also Michael's *The Effect of Education on Efficiency in Consumption*, Columbia University Press, 1972); "The Relationship Between Schooling and Savings Behavior: An Example of the Indirect Effects of Education," by Lewis C. Solmon; and "Education and the Price of Time, and Life-Cycle Consumption," by Gilbert R. Ghez. An interesting paper by Isaac Ehrlich, "On the Relation Between Education and Crime," found "in contrast to the disappointing results obtained in testing the partial effect of (the mean number of school years completed by the population over 25) on specific crime rates, interesting and plausible results were obtained for the partial effects of education on the effectiveness of law enforcement activity across states." In "Education and Fertility," Robert Michael estimates relationships between education and family size. Albert Beaton, in "The Influences of Education and Ability on Salary and Attitudes," estimates effects of schooling and measures of ability on such variables as "salary, attitudes toward work, attitudes toward life, attitudes toward determinants on job success, and views on education."

3:4.0/74

Higher Education and Earnings, Paul Taubman and Terence Wales, 302 pp. (McGraw-Hill Book Co., New York).

This book provides estimates of relationships between earnings, schooling, and ability based on a rich longitudinal data base. The data base includes records for 5,000 men who volunteered for service in the U.S. Army Air Corps in 1943 and participated in followup surveys in 1955 and 1969. Each record includes scores on 17 tests, as well as information on income and on occupational and educational histories. Among alternative measures of ability used to estimate the effects of schooling on income, the authors found that only the score on a mathematical ability test influenced income. With this measure, they found there is approximately a 25 percent overstatement of the effect of schooling on income if the mathematical ability test score is omitted from the estimation. Taubman's subsequent work (see 3:4.0/76-2) suggests that available measures of ability and family background do not approximate these crucial influences. The authors gave particular attention to tests of the "screening hypothesis" in which education can contribute, aside from valuable skill, credentials either desired by employers as predictors of future performance or required as a means of restricting entry into occupations. An ingenious test of this hypothesis, based on comparison of actual entry with expected entry into occupations in the absence of credential restrictions, provided the finding that for those with a college education, screening does contribute substantially to earnings. A recent test of the screening hypothesis is provided by John G. Riley (3:4.0/79-1). Riley concludes that ". . . the screenist interpretation of schooling as provider of both additional skills and information indeed offers a more complete explanation of observed behavior than the traditional human capital models."

The authors present calculations of private and social rates of return to education that, in many cases, are lower than on physical capital. This result led the authors to state: ". . . it appears that society has invested too many resources in education if the supply of savings is fixed. Further, the higher the education level (excluding lawyers and M.D.'s), the lower the rates, suggesting that the overinvestment is more severe at the higher levels. However, we have not included in our analysis allowances for externalities or consumption benefits which, if they yield large enough returns, could justify expenditures on education. Since we find screening to be important quantitatively, our conclusion that overinvestment in education has occurred has strengthened." Samples of the many other results include findings that good health contributed $7,000 per year to earnings in 1969 and that, among students attending institutions within the upper fifth in measured quality, college quality significantly influenced earnings.

3:4.0/72

"Investment in Education: The Equity-Efficiency Quandary," Theodore W. Schultz, ed., 292 pp. *Journal of Political Economy*, Vol. 80, No. 3.

This volume is a series of papers presented at a 1971 workshop at the University of Chicago sponsored by the Committee on Basic Research in Education of the National Research Council. It remains one of the most important sources on the economics of higher education, in large part because of Theodore W. Schultz's introductory essay, "Optimal Investment in College Instruction: Equity and Efficiency." A portion of this essay is concerned with interrelationships between investment in education, economic growth, and the contribution of education to allocative efficiency during the economic growth process. Schultz presents the hypothesis that educated individuals are more prompt in responding to opportunities resulting from disequilibria, including opportunities created by growth, resulting in rapid adjustments beneficial to both the individual and society. Inadequate attention has been given to this important hypothesis on which Schultz provides further justification in "The Value of the Ability To Deal With Disequilibria" (*Journal of Economic Literature*, Vol. 13, September 1975, pp. 827-846).

Schultz's essay sparked an interesting debate within the workshop by making an eloquent argument for largely eliminating subsidies for high-income students and targeting that aid to low-income students. Schultz argued that this is a preferred alternative to the existing policy of providing relatively uniform subsidies—both because most high-income students would attend anyway and, given the degree to which society is willing to subsidize higher education, uniform subsidies may be insufficient to influence the choices of many low-income students. Anne O. Krueger responded that subsidies to the poor should be independent of college attendance, and Harry G. Johnson added that many individuals from low-income backgrounds considering college have higher income prospects than those from the same income background who are not.

Other papers in the volume include "Time Series Changes in Personal Income Inequality in the United States from 1939, With Projections to 1985," by Barry R. Chiswick and Jacob Mincer. This is a pioneering attempt to use a human capital earnings function to relate changes in income inequality over time to "the distribution of age, schooling, employment, and rates of return, and to the intercorrelations among these variables." The authors found that schooling, age, and unemployment were the major determinants of changes in the income distribution for adult males in the United States between 1939 and 1965. (For a related use of earnings functions, see Finis Welch, "Black-White Differences in Returns to Schooling," *American Economic Review*, Vol. 63, December 1973, pp. 893-907. See also the papers in the supplement to the *Journal of Political Economy* titled *Education and Income Distribution*, Vol. 87, No. 5, Part 2, October 1979, edited by Richard Layard.)

Two papers are included on attempts to control for ability and other variables in estimates of earnings functions, or relationships between income, schooling, and other variables: "Education, Income and Ability" by Zvi Griliches and William M. Mason, and "Earnings Profile: Ability and Schooling" by John C. Hause. Recent work casts doubt upon the results of these studies. See Zvi Griliches, "Estimating the Returns to Schooling, Some Econometric Problems" (3:4.0/77-1) and, particularly, Paul Taubman, "Earnings, Education, Genetics and Environment" (3:4.0/76-2).

In "Equity Implications of State Tuition Policy and Student Loans," Robert W. Hartman attempts to "illustrate the gross effects on future income distributions of an increase in tuition at state institutions," with and without expanded loan programs. Samuel Bowles deals with relationships between social class, schooling, and income between generations in "Schooling and Inequality from Generation to Generation." Improvements in these pioneering studies are likely to result from the recent conceptual work of John Conlisk (3:5.0/77). In "Equity and the Finance of Higher Education," W. Lee Hansen points out that there is little evidence supporting the argument that external benefits from educated individuals justify subsidies to higher education. Hansen discusses alternative concepts of equity in educational finance and evaluates proposals for improving equity. In "On Tuition and the Costs of Higher Education: Prolegomena to a Conceptual Framework," Marc Nerlove provides a number of insights on joint production of research and instruction. Harry G. Johnson, in "The Alternative Before Us," provides a discussion of equity within higher education in the context of equity in the society at large. Finally, in "Some Reflections," Edward F. Dennison states that there is little empirical support for the common notion that efficiency benefits result from subsidizing students with high abilities.

5.0 INCIDENCE OF BENEFITS AND COSTS OF EDUCATIONAL SUBSIDIES

3:5.0/77

"A Further Look at the Hansen-Weisbrod-Pechman Debate," John Conlisk, *Journal of Human Resources*, Vol. 12, No. 2, pp. 147-163.

One of the most significant results of the Hansen-Weisbrod study is the interest it has generated in the incidence of benefits and costs of higher education subsidies by income groups. A number of researchers have argued, however, that calculations of current benefits and costs of educational subsidies by income group do not give an adequate picture of the effects of higher education subsidies on social mobility.

This paper by John Conlisk is a major contribution in that it provides a formal model of intergenerational costs and benefits of higher education. The model includes equations for: (1) before-tax lifetime income of a child as a function of his schooling, after-tax and after-tuition lifetime income of the parent, and schooling of the parent; and (2) schooling of the child as a function of tuition, after-tax parental income, and parental schooling. There are also definitional equations relating taxes to before- and after-tax income, governmental expenditures to taxes, and income to subsidized and unsubsidized educational expenditures. The model can be solved to determine, over generations, the joint distribution of families by their before- and after-tax incomes, taxes, and schooling. The author uses his model to demonstrate that calculations of the current period incidence of benefits and costs of educational subsidies by income group are not reliable indicators of the intergenerational incidence of benefits and costs of the subsidies.

Estimates of the parameters of Conlisk's model could provide valuable information on the effects of existing subsidy systems on social mobility and permit simulation of the effects on social mobility of a wide variety of alternative subsidy schemes. The model would need additional theoretical work, particularly in regard to the specification of intergenerational labor market conditions and the characteristics of the income distribution. The work of Taubman with twins permits estimates of the effects of schooling on income. These could be incorporated into the model, along with estimates available from several sources of the effects of tuition on schooling by income group. The National Longitudinal Surveys provide some data on matched parent-child incomes, which have already been analyzed by Donald O. Parsons in "Intergenerational Wealth Transfers and the Educational Decisions of Male Youth" (*Quarterly Journal of Economics*, Vol. 89, November 1975, pp. 60? 617).

3:5.0/69

Benefits, Costs, and Finance of Public Higher Education, W. Lee Hansen and Burton A. Weisbrod, 114 pp. (Markham Publishing Co., Chicago).

Originally prepared for the California Joint Committee on Higher Education in 1967, this study, published in slightly revised form, was one of the first and most influential in its sytematic application of economic cost-benefit analysis to state financing of public higher education. Although its principal finding—that California public higher education operates as a vehicle for redistributing resources from lower income groups to higher income groups—has been criticized, the study continues to be a highly influential and controversial guide to methodology among educational planners and economic researchers, stimulating improved understanding of the financing of public higher education.

The first chapter describes basic issues related to economic analysis of higher education, including distinctions between efficiency and equity, private and social benefits and costs, and institutional and noninstitutional costs. The second chapter presents calculations of benefits of public higher education in California, among them increased individual incomes and taxes paid. The third chapter describes costs of public higher education, both to students and to the public.

In the fourth chapter, "Distribution of Benefits and Costs of Public Higher Education," the authors posit two calculations. First, they calculate present values of subsidies and of resulting additional taxes paid. Based on these calculations, the authors note the large benefits received by students and by the Federal Government from the state's subsidies. Second, the authors calculate the incidence of higher education subsidies by income group via the incidence of attendance patterns by income group at public institutions in the state. They find that families with children in college tend to have higher incomes than families without children in college, and that the more costly public institutions tend to enroll students from families with relatively higher income backgrounds.

They also find that combined state and local taxes are regressive. By comparing the incidence of taxes by income group with subsidies received only from higher education, the authors conclude "that the current method of financing public higher education leads to a sizeable redistribution of income from lower to higher income." The authors recognize the crudeness of their calculation, suggesting further research aimed at improving understanding of the incidence of benefits and costs of higher education subsidies.

The latter calculation stimulated a number of important articles about the incidence of benefits and costs of higher education by income group. Joseph A. Pechman's "The Distributional Effects of Public Higher Education in California" (*Journal of Human Resources*, Vol. 5, No. 3, pp. 361-370) argues that the correct calculation, possible with the data used by the authors, is to calculate directly the subsidies received and taxes paid in each income bracket. Pechman's calculations suggest the opposite result—that net subsidies tend to be higher the lower the income bracket.

Joseph W. McGuire (*Journal of Human Resources*, Vol. 11, No. 3, 1976, pp. 343-353) provides calculations of subsidies received and taxes paid by income bracket and type of public institution attended with scholarship data included. He argues that only data on families without children in public institutions whose head is of comparable age to heads of families with children in public institutions should be used. His results support Pechman's.

An interesting interpretation and evaluation of the debate initiated by Hansen and Weisbrod is provided by Mark Blaug in "The Distributional Effects of Higher Education Subsidies" (*Economics of Education Review*, Vol. 2, No. 3, Summer 1982, pp. 209-231). Blaug also provides a number of new insights on life-cycle inferences about distributional effects of higher education subsidies.

The work of Hansen and Weisbrod has also stimulated interest in the intergenerational benefits and costs of higher education subsidies. [See Robert W. Hartman (3:4.0/72) and John Conlisk (3:5.0/77).]

4

Educational Opportunity

K. Patricia Cross

Extending postsecondary educational opportunity to underrepresented segments of the population has been a high-priority goal of postsecondary education for several decades. The flow of literature on this topic was particularly heavy in the 1970's. In 1977 alone, nearly 200 documents were indexed under the term "equal education" in the Educational Resources Information Center (ERIC) system. In addition, thousands of documents addressed the needs of particular target groups such as ethnic minorities, women, and adults. The prolificacy is understandable, however, for literature on educational opportunity is quickly rendered obsolete by progress, new concerns, knowledge, and experience.

Educational opportunity is usually discussed in terms of "target groups," those identified as underrepresented in education enrollments. Such identification is usually accomplished through demographic or U.S. Bureau of the Census descriptors such as age, sex, and race, although a good argument could be made that defining target groups on the basis of educational need would facilitate planning. It might be more useful, for example, to define as target groups learners who share a common need for off-campus locations or special help with basic skills than to attempt to address the quite diverse educational needs represented within a demographic grouping such as "adults" or "women." The category "women," for example, becomes relatively useless for planning purposes when it must address the educational needs of reentry women under the same label as women fully occupied with home and family.

At the present time, most of the literature on educational opportunity addresses the needs of populations that have been excluded from educational opportunity by traditional attitudes and practices. The target groups commonly identified are: adults, ethnic minorities, handicapped students, low-income students,* underprepared students, and women.

Of these six target groups, three are demographically defined: adults, ethnic minorities, and women; three are defined in ways that make it somewhat easier to determine educational needs: handicapped, low-income, and underprepared. Although educational planners may have some problems with these groupings, this bibliography will follow the accepted pattern of considering educational opportunity in terms of previously excluded or underrepresented target groups.

The question best addressed by this selected list of references is: What can planners do to facilitate access to educational opportunity for particular population groups that have been underrepresented in higher education in the past? The phrase "access to educational opportunity," however, is broadly interpreted to mean more than merely gaining entry.

In the case of underprepared students, for example, selected references include information about remediation and instruction designed to open full educational opportunities to these students.

General Issues. Dealing mainly with access, this section defines educational opportunity and provides the foundation and perspective with which to approach target groups of the remaining subtopic areas. In recent years, there has been some decline in the amount of literature addressing the generic topic "equal opportunity." Most authors are now "specialists" in particular target groups.

Adults. Recent interest in adult learning has resulted in a torrent of literature. It is a "hot topic" throughout the world. The literature comes under a variety of labels (adult education, continuing education, recurrent learning, lifelong learning, nontraditional study); it emerges from a variety of disciplines (education, psychology, gerontology, demography, health); it reflects concerns across a broad spectrum of social issues (reentry women, mandatory education for relicensing, aging); it appears in the literature of numerous sponsors of educational services (libraries, museums, industry, media); and it is approached from different perspectives (statistics on demography, research and theory on developmental stages, state and national legislation, marketing surveys). Selecting a basic reading shelf for planners concerned about learning opportunities for adults is extremely difficult. Volumes annotated here emphasize a synthesis of information from primary sources.*

Minorities. The literature on educational opportunity for ethnic minorities over the past decade has consisted largely of descriptive studies showing the progress—or lack of progress—of various ethnic minorities in attaining access to higher education. While the literature on blacks remains the most extensive, new comprehensive works have recently been completed on Hispanics and Native Americans.

Other subtopics related to minorities that will be of interest to planners are Topic 19, Admission/Articulation/Retention, and Topic 16, Student Characteristics and Development.

Handicapped. Now that most institutions of higher education have had experience with Section 504 of the Rehabilitation Act, many of the current publications highlight techniques and personal testimony on how to make the Federal laws requiring equal access for the handicapped work. Volumes annotated here were chosen because they represent the best of a rather "spotty" literature.

Underprepared Students. When the predecessor to this bibliography (*Higher Education Planning: A Bibliographic Handbook*) was published in 1979, underprepared students were of interest primarily to community colleges. However, with admissions test scores still declining (along with potential students), many 4-year colleges are accepting all applicants; and all colleges are looking for ways to increase retention. Thus, underprepared students have become a major topic of concern in higher education. Fortunately, experience and research now provide good materials, and the literature on underprepared students, although still limited in quantity, is of good quality. The two volumes annotated here are comprehensive potential guides based on experience, and they should prove useful to planners and practitioners in both 2- and 4-year colleges.

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* A more comprehensive treatment of adult education is offered under the heading "Lifelong Learning," Topic 34.

Women. Since 1978 there has been an explosion of publications concerning women's educational opportunities. Federal legislation, including titles VII and IX of the Education Amendments of 1976, has created a policy focus for state- and institutional-level planning for equal access. Because of the volume of literature, information clearinghouses are proving especially helpful. The most recent citations listed here provide information about legislation, special programs, ongoing research, compliance, and other issues of concern in the quest for women's equity.

TOPIC ORGANIZATION

4: Educational Opportunity
  1.0 General Issues
  2.0 Adults
  3.0 Ethnic Minorities
  4.0 Handicapped
  5.0 Underprepared Students
  6.0 Women

1.0 GENERAL ISSUES

4:1.0/81

Conflict and Continuity, John R. Snarey, Terri Epstein, Carol Sienkiewicz, and Phillip Zodhiates, eds., 471 pp. (*Harvard Educational Review*, Cambridge, Mass.).

The *Harvard Educational Review*, in celebrating its first half-century, brings together from its own pages a volume of articles that reflect the search for the purposes of education and for strategies to achieve them. These articles emphasize the aims of education and its ability to foster human development and social equality. The intent of this volume is to remind us that the salient issues of today are essentially the same as those of the past.

This two-part volume is organized under two themes: the psychology of human development and the sociology of education. Part Two, Education and Social Equality, contains 11 articles on the general subject of educational opportunity. Among these is: James Bryant Conant's classic 1948 article in which he presents a model of a perfect meritocracy in which talents and education are matched in the schools. Talcott Parsons (1959) presents his findings that student aspirations differ widely depending on socioeconomic background, and concludes that academic success is partly the result of the family's socioeconomic status and partly of individual ability. James S. Coleman (1968) reflects on the various definitions of equality of opportunity, which he says shifted in the 1960's to educational outcomes while incorporating the ideal of social integration. Charles Hamilton (1968) argues that equality depends on the degree of control that black parents have over their schools. The themes of emancipation and power are also concerns of Paulo Friere's (1970) article on "The Adult Literary Process." And Jerome Karabel, in "Community Colleges and Social Stratification" (1972), contends that although they are considered egalitarian institutions, community colleges in reality track students, thereby maintaining class divisions.

Although originally published before 1978, all of these articles provide a perspective on the American quest for equality of opportunity through education.

4:1.0/80

Equity Self-Assessment in Postsecondary Education Institutions, Sherrill Cloud, 131 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This document offers a general framework for thinking about, evaluating, and promoting equity for students and employees in postsecondary education. The author presents suggestions that will help higher education institutions regain management initiative and discretion with regard to equity issues.

For example, Chapter Two presents suggestions to institutional administrators for review and analysis of individuals who might be considered in relation to equity issues at the institution: e.g., age, citizenship, handicapped status, income level. Chapter Three identifies the major equity issues for colleges and universities: access to institution of choice, to program of choice, and to resources; and satisfactory completion of each individual's self-determined level.

This book is written for administrators responsible for equal opportunity or affirmative action for students and employees. The author takes the position that "equity considerations must be built into the infrastructure of postsecondary education to ensure that they become integrated into all plans, resource allocations and processes, and activities."

4:1.0/78

Admitting and Assisting Students after Bakke, Alexander W. Astin, Bruce Fuller, and Kenneth C. Green, eds., 110 pp. (Jossey-Boss, San Francisco).

This book addresses major policy issues resulting from the *Regents of the University of California* v. *Bakke* decision. Some of the issues are: the meaning and measurement of "disadvantagement"; the actual experiences and areas of attrition among minority students in the educational system; the kinds of criteria admissions committees use to evaluate applicants; and the role and responsibility of states in responding to human service needs in underserviced (and often minority) communities. The book provides "hard" information for members of the higher education community: students, faculty, administrators, and state and Federal policymakers. The book includes examples of "minority-sensitive" alternative admissions procedures, personal experiences of small groups of minority students in graduate and professional schools, and attrition rates for minority students.

4:1.0/77

Improving Equity in Postsecondary Education: New Directions for Leadership, Judith Gappa, 50 pp. (National Institute of Education, Washington, D.C.).

This booklet is the final report on an invitational workshop on equal opportunity sponsored by the National Institute of Education. Because it is the report of a conference in which most of the participants represented underserved constituencies, it is short on data and long on feelings. But that should provide a useful perspective to planners who occasionally need to remind themselves that equity is a human issue as well as a statistical one.

Part I reviews the current status of equity in postsecondary education with regard to student access and treatment, employment, Federal impact, and the interchange between postsecondary education and society.

Part II attempts to chart future directions with suggestions for providing leadership, improving communications and understanding among individuals and groups, and suggesting new initiatives for Federal legislation. A rather long list of research questions, and, perhaps most useful, an "action agenda" for leaders in postsecondary education conclude this helpful overview.

In general, planners reading this booklet probably will learn nothing new about equity, but will remind themselves of something they knew was important but had forgotten.

4:1.0/73

The Sourcebook for Higher Education, Warren W. Willingham, 481 pp. (College Entrance Examination Board, New York).

This volume represents an ambitious undertaking begun when the literature on "access to college" began to proliferate beyond anyone's capacity to keep up. Warren W. Willingham has annotated more than 1,500 "selected" references, with emphasis on the access literature of the late 1960's.

The annotations give the reader "an understanding of what each publication is about and why it is important in relation to the access process." A comprehensive taxonomy with literature keyed to taxonomy categories provides the basic classification for annotations. An author index and a subject index help make the volume a handy reference. In this volume, planners can find an adequate description of almost any piece of significant writing on access to higher education up to the spring of 1971.

4:1.0/70

Free-Access Higher Education, Warren W. Willingham, 240 pp. (College Entrance Examination Board, New York).

State planners seeking to extend educational opportunity by making educational resources more widely available should find this book useful. The author defines free-access higher education in terms of three factors: annual tuition of $400 or less; at least one-third of the entering freshman class composed of high school graduates from the lower half of their class; and geographical location within a 45-minute commuting distance. The author identifies colleges that fall within this definition and then determines, on a state-by-state basis (as of 1968), what percentage of the population had access to them.

The percentage of the population within commuting distance of a free-access college ranged from a low of zero in Maine, Indiana, and Nevada to a high of 87 percent in Connecticut, 68 percent in North Carolina, and 65 percent in Mississippi. Free access to higher education nationally is graphically illustrated by means of a map of the United States showing areas served by free-access institutions and by tables showing countrywide comparative levels of accessibility, population, and estimates of additional colleges required.

Some of the variation in access results from the use of multiple criteria defining free-access higher education; generally it is defined as publicly sponsored and achieved primarily through community colleges, technical institutions, and branches of public universities.

Although the figures are over 10 years old, the discussion and analyses are still relevant. A related study by Richard I. Ferrin, *A Decade of Change in Free-Access Higher Education*, also published by the College Entrance Examination Board, compares free-access data for 1958 and 1968 to determine the extent of change that had taken place over the decade. During that period, the number of free-access colleges—almost all public—increased from 538 to 789. In those areas where 30 percent of the population had lived within commuting distance of a free-access college in 1958, that percentage increased to 42 in 1968.

See: 12:1.1/74-2 *A Digest of Reports of the Carnegie Commission on Higher Education*, Carnegie Commission.

Of the 21 reports abstracted in this volume, eight are related to equal opportunity: "Quality and Equality" (1968 and 1970); "A Chance to

Learn" (1970); "Open Door Colleges" (1970); "Less Time, More Options" (1971); "From Isolation to Mainstream" (1971) (Negro Colleges); "New Students and New Places" (1971); "Opportunities for Women in Higher Education" (1973); and "Toward a Learning Society" (1973).

2.0 ADULTS

4:2.0/81

Adults As Learners, K. Patricia Cross, 300 pp. (Jossey Bass, San Francisco).

This book describes adult learners and synthesizes research findings into two explanatory models: one for understanding the motivation of adult learners, and the other for organizing knowledge about their characteristics and circumstances.

The book's major theme is that service to individual learners should be the goal of the learning society. The author, after reviewing more than 1,000 documents, organized the book to respond to the following questions: Who participates in adult learning? Why do they participate, or, conversely, why not? And, what and how do they learn or want to learn?

Chapter One synthesizes demographic, social, and technological trends that stimulate demand for learning opportunities. Chapter Two voices the views of critics of the lifelong learning movement. Chapter Three reviews research findings about who participates in adult learning.

Chapter Four discusses the research on motivation and barriers to adult learning; it looks at the use of survey information and experimental studies documenting the impact on participants when certain barriers are removed or imposed. Chapter Five reviews major motivation theories concerning adult learning; theory comparisons are made possible through the identification of common elements.

Chapter Six looks at issues and implications of increasing participation and motivation for adult learning. Chapters Seven and Eight review research on what is known about "what and how adults learn," emphasizing the learning process, developmental research, self-directed learning, and what is known about adult learning from existing state and national surveys. Chapter Nine examines current learning theories and suggests a conceptual framework for analyzing the interactions between learners and their environments.

The book concludes with two appendixes based on common themes in current definitions of lifelong learning.

See: 12:1.1/81-3 **The Modern American College,** Arthur W. Chickering and Associates.

This volume, titled to reflect its relationship to Nevitt Sanford's 1962 classic on *The American College*, reasserts Sanford's thesis that the development of the student as a person is the central aim of education. In 1981, however, students in "The Modern American College" are increasingly diverse—in age, educational purposes, background and preparation, socioeconomic status, and ethnicity.

Chickering and his 51 coauthors contend that the purpose of higher education should be to enhance the development of students from ages 18 to 80, and they took upon themselves the ambitious task of providing research-based information and a conceptual framework for understanding the nature of human development within the context of lifelong learning.

The book is organized in three parts. Part One synthesizes basic information about the development and learning of adults. Its 14 chapters present data on the life cycle of adults, their intellectual and ego development, and their learning problems. The star-studded cast of authors includes Robert Havighurst, William Perry, K. Warner Schaie, Joyce Parr, Carol Gilligan, Elizabeth Douvan, Robert White, and many others who have done significant work on human development.

Part Two uses key concepts from the research and theory presented in Part One to emphasize the need for a varied curriculum made up of academic disciplines and professional programs including anthropology, business administration, engineering, English, history, human services, and philosophy. Part Two also asks the following questions: What are the implications of these findings for teaching in particular disciplines and areas of professional development? How can teaching be structured to help students meet life-cycle challenges and encourage developmental change.

Part Three applies this new knowledge about adults to higher education institutional operations. Fourteen chapters, including such topics as "Student-Faculty Relationships," "Field Experience Education," "Administrative Development," and "Residential Learning," build on the concepts introduced in Part One and suggest ways to reform institutional policy and procedures in order to more fully support adult development. Part Three—like Parts One and Two—advances the authors' view that by giving proper attention to life-cycle challenges, educators can design coherent programs that better prepare adults for a rapidly changing society. The developmental needs and life-cycle concerns of staff, as well as students, are also considered.

This comprehensive volume provides a wide range of theoretical orientations. The unifying theme is that each of the distinguished coauthors believes that a major purpose of education is to promote adult development. From that central theme, the book spans a diverse and rich field of transdisciplinary perspectives on adult development and higher education.

In the authors' own words, "research and theory concerning human development and the life cycle can provide a unifying vision for higher education and lifelong learning. We proposed that colleges and universities intentionally encourage developmental change throughout the life cycle as their basic purpose. We noted that such an orientation . . . can help address the major social challenges likely in the 1980's and beyond, can strengthen our capacity to achieve both immediate and long-range educational objectives. . . ."

This impressive volume may well become a landmark in the field of educational inquiry.

4:2.0/80-1

Americans in Transition, Carol B. Aslanian and Henry M. Brickell, 170 pp. (College Entrance Examination Board, New York).

This study, sponsored by the Future Directions for a Learning Society project, investigates the *causes* and *timing* of adult learning. The analysis is based on national survey research data collected from approximately 2,000 randomly selected adult Americans 25 years of age and older. The question asked during face-to-face and telephone interviews was: Why do adults go back to school or decide to study on their own? The dominant answer, and the central conclusion of the book, is "that most adult decisions to seek educational renewal are clearly and directly related to significant [extra-educational] changes in their lives—changes affecting their careers, family situations, health, religion, or leisure opportunities." In essence, the book argues that "going back to school is less significantly a transition in itself than the consequence of some other change . . . in individual circumstance." By highlighting key motivational factors for adults' return to formal education, the authors present research findings that have direct implications for teachers and administrators of transitional adult learners.

Part Two, "Findings," provides evidence on what causes adults to learn, along with data on what and where they learn. The survey information permits the authors to: "profile" learners and nonlearners; offer reasons for adult learning (e.g., life changes, transitions); discuss "triggers" for motivating adults to learn; provide examples of the relationship between life transitions and triggering events (e.g., changes in careers, family life, leisure, personal health); summarize how learners differ by categorical type (e.g., "adults under age 65 learn chiefly because of career transitions, while adults over 65 learn chiefly because of leisure and family transitions"); and suggest reasons for *what* and *where* adults learn.

The book also discusses implications for each of the following: (1) those who provide adult learning; (2) those who supply information and counseling to adult learners; (3) those who make public policy concerning adult learning; (4) those adults who are or should be learning; and (5) those who study adult learning.

4:2.0/80-2

Adult Development: Implications for Higher Education, Rita Preszler Weathersby and Jill Mattuck Tarule, 59 pp. (American Association for Higher Education—ERIC, Washington, D.C.).

This monograph summarizes much of the current research in adult and human development theory. The book suggests methods for applying human development theory to higher education program development and strategy, curriculum and teaching methods, faculty development evaluation, and counseling and support services.

The authors divide the adult and human development research literature into two basic perspectives: chronological periods in the adult life cycle and developmental growth toward maturation.

The work on life-cycle stages presents a number of useful tables and charts synthesizing across the work of Neugarten, Erickson, Levinson, Gould, and Havighurst. In the section on developmental stages that are related to maturation rather than to age, the work of developmentalists such as Kohlberg, Perry, Loevinger, Piaget, and Bloom are abstracted.

The chief asset of the book is that it draws together into one brief report the major theories of adult and human development, and it suggests direct application methods for their use in higher education. This book would be useful to planners and researchers as a quick reference guide to an emerging body of theories.

4:2.0/79

Policies for Lifelong Education, Jamison Gilder, ed., 127 pp. (American Association of Community and Junior Colleges, Washington, D.C.).

This book is a collection of policy recommendations developed in 1979 by a national assembly of distinguished educators called together by the American Association of Community and Junior Colleges. The book is intended to provide specific recommendations for the current practice and future direction of lifelong education.

Each chapter is a summary of remarks made by an invited speaker. The following are among the topics included. "The Pay-off of Lifelong Education and Training" frames lifelong education in economic terms—e.g. national capital investment, productivity. "Lifelong Education and Politics" offers explanations for existing political barriers blocking the development of Federal, state, and local policies that promote lifelong education. The chapter on existing "attitudes" toward adult, part-time, and evening students highlights problems with recognition, curriculum, services, legislation, and finances. "Legal Policies on Lifelong Learning: An Overview of the States" describes state constitutional provisions, state laws, administrative rules and regulations, general rulings, and court decisions that impede the implementation of lifelong education. "Restructuring Community Colleges for Lifelong Education" describes practical problems that community colleges must address, such as lack of state funding mechanisms, attitudes regarding the value of lifelong learning, personnel policies, budgeting, and needed facilities. The final chapter, "Report of the 1979 Assembly," summarizes the conference by making specific recommendations on the following: community colleges, the American Association of Community and Junior Colleges, Federal and state governments, and the general public. Since labor, business, and industry are also components of lifelong education, a set of recommendations concerning relationships with the private sector is included.

See: 34:1.0/79 **Lifelong Learning in America,** Richard E. Peterson, K. Patricia Cross, Susan A. Powell, Terry W. Hartle, Mark A. Kutner, and John R. Valley.

This volume, designed specifically for planners, is probably the single most valuable source of information about the education of adults and the phenomenon of lifelong learning. In the words of the authors:

> . . . the basic purposes of the volume, after first suggesting 'lifelong learning' as a conceptual framework for fashioning new sets of services to better aid continuing learners, are to afford broad-perspective planners: (1) a view of many of the potential partners in broadly conceived cooperative lifelong learning enterprises; (2) an array of facts about the motivations of adult learners, their perceptions about barriers to further learning, and related matters; and (3) an overview of the kinds of policies and programs being actively considered, if not yet implemented, by the federal and various state governments. This document is not a policy study; it contains no recommendations. It is, instead, akin to an information base that can, hopefully will, *inform* planning processes toward the ends of intelligent policy and effective programs.

The book has seven chapters. The first chapter, by Richard E. Peterson, presents a typology of the broad range of learning resources available to people throughout their lives from schools, industry, professional associations and trade unions, government, community organizations, newspapers, television, etc. The author puts planning for formal educational programs in perspective by showing them as one facet of the merging learning society.

Chapter II, by K. Patricia Cross, synthesizes data about adult learners from some 30 state and national surveys of adult participation and interest in various learning activites. The consistency of findings across studies makes it possible to present a generalized profile of the interests and needs of adult learners.

Chapter III, by John R. Valley, discusses adult learning resources provided by local organizations and agencies—museums, libraries, and counseling and information services, as well as nontraditional programs devised by colleges and universities. Chapter IV, by Susan A. Powell, provides a review of recent activities and plans in the states as revealed by documents from state planning offices and commissions. Case studies of four states are included. Chapter V, by Terry W. Hartle and Mark A. Kutner, summarizes Federal programs related to lifelong learning and speculates on the Federal Government's role. Chapter VI is a compendium of sources of further information—directories, advisory councils, clearinghouses, journals and newsletters, abstracts of current research programs and services, and relevant legislation. And Chapter VII, by Richard E. Peterson, presents the implications and consequences of lifelong learning for the future. This chapter discusses the case for lifelong learning, its benefits, and the significance for planners and program directors.

This book is a sourcebook for planners. Although it will be quickly outdated because of the rapid changes taking place in planning for adult learning, it provides an excellent background of information. It does not recommend actions, but it can put planning in touch with a network of useful resources.

4:2.0/78

Lifelong Learning and Public Policy, Lifelong Learning Project, 57 pp. (U.S. Department of Health, Education, and Welfare, Washington, D.C.).

This is the report of the Lifelong Learning Project authorized by Title I-B of the 1976 Higher Education Act, popularly known as the Lifelong Learning Act. The project—which was under the auspices of the Assistant Secretary for Education of HEW—commissioned studies, sponsored conferences, conducted public briefings, and facilitated exchanges of information among major lifelong learning efforts. The project's primary goal was to arrive at recommendations for the Federal role in lifelong learning. The report spells out what the Federal Government could do to improve and make more equitable learning opportunities for adults at Federal, state, and local levels.

This report, which was transmitted to the Congress on February 10, 1977, takes a broad view of the learning society, recommending complementary roles of Federal and state governments in cooperation with local providers of educational opportunities. It calls on the Federal Government for program coordination, research, and information dissemination to facilitate adult learning in a range of both formal and informal settings, including universities, community colleges, public schools, workplaces, community centers, public libraries, museums, and public broadcasting. A supporting role rather than one of leadership is recommended for government. "Federal, State, and local policy should be directed toward supplementing, not supplanting, the efforts of local providers. Policymakers should emphasize three kinds of support: developing services for the currently unserved, developing mechanisms which link learners to the appropriate resources, and developing planning and coordinating strategies which encourage collaboration rather than competition among local providers."

The report provides special analyses and recommendations for increasing the learning opportunities for four groups of learners: workers, urban youth, women, and older adults. An appendix provides references to some 30 papers and reports addressing the special problems of these learner groups, as well as a potpourri of other concerns.

Planners will find this brief report more useful for its broad perspective on social policy and the Federal role than for facts, data, or specific recommendations about how to plan for lifelong learning.

4:2.0/77-1

Policymaking Guidelines for Extended Degree Programs: A Revision, Leland L. Medsker and Steward L. Edelstein, 124 pp. (American Council on Education, Washington, D.C.).

This paperback book is concerned with the policy implications of extended and external degrees, i.e., degree credits earned by unconventional or nontraditional means. An intensive study of extended degree programs, conducted by the Center for Research and Development in Higher Education of the University of California at Berkeley in 1974-75, led to the formation of the guidelines. The research findings were presented along with their implications for public policy at a policy seminar consisting of some 60 leaders in American higher education.

This publication summarizes the results of both the research and the policy seminar. It attempts to organize policy issues, to raise questions about what needs to be considered in designing, launching, and maintaining external degree programs, and to suggest guidelines for action.

Policy issues are organized into seven areas: clientele; program features and student services; staffing; organization; finance; planning, initiation, and evaluation; and extrainstitutional policies and priorities that are the primary responsibility of state and Federal agencies, accrediting bodies, regional associations, etc.

Each major policy area is introduced by a brief contextual background statement. The policy issues are then addressed as questions, and are followed with relevant information and guidelines.

The book has a major yet unusual advantage of presenting the implications of research findings in the practical context of a policy seminar. It should serve as valuable background for planners as well as provide a checklist of considerations for planning external degree programs.

4:2.0/77-2

The Adult, Education, and Public Policy, Michael O'Keefe, 63 pp. (Aspen Institute for Humanistic Studies, Palo Alto, Calif.).

This succinct report prepared by Michael O'Keefe, Deputy Secretary for Planning and Evaluation in the former U.S. Office of Education, provides an appropriately cautious balance for the optimistic writings of the lifelong-learning enthusiasts. O'Keefe predicts the early saturation of growth in adult education. Indeed, his interpretation of statistical trends suggests that the adult education boom of the early 1970's may already have peaked.

While admitting that better data and insights are needed in order to formulate adequate social policy, he sees critical problems already present in meeting the educational needs of groups currently underrepresented in educational activities—primarily undereducated and unemployed segments of the population, as well as groups such as ethnic minorities and women. The author is basically supportive of programs that make education available to broader segments of the population, but he is cautious and even pessimistic about political support for large-scale government spending for adult education.

This is an important, thought-provoking book, with good, albeit somewhat dated, tabulations of adult participation in educational activities. O'Keefe uses data well to articulate the issues, and his discussion and recommendations reflect his understanding of the basic realities of planning.

See also: 34:3.0/74 **Planning Non-Traditional Programs,** K. Patricia Cross, John R. Valley, and Associates.

34:1.0/73-1 **Diversity by Design,** Commission on Non-Traditional Study.

3.0 ETHNIC MINORITIES

4:3.0/81

Equal Educational Opportunity: The Status of Black Americans in Higher Education, Institute for the Study of Educational Policy, 330 pp. (Howard University Press, Washington, D.C.).

This report is the fourth in a planned series of reports on opportunities for blacks in higher education. Each report will concentrate on one school year and will include followup documents recommending state and Federal action.

This report, covering the school years 1975-77, provides comprehensive data and analyses on the current status of blacks in higher education, the economic returns for blacks, the continuing barriers to equal educational opportunity, and the problems inherent in the data by which public policies are often determined. Based largely on surveys and other data, the study specifically addresses the following issues: (1) How is equal opportunity measured? (2) Why are blacks underrepresented in the nation's colleges? (3) How does the return on investment in a college education for blacks compare with that of their white counterparts? and (4) What has been the effect of Federal mandates regarding equal educational opportunity?

Access—the opportunity to enroll in a college—is not the only way to measure progress in providing higher education to minorities. The kind and quality of colleges available, as well as a student's ability to do the academic work, present problems for planners concerned with quality education. While Federal mandates have to some extent made access easier, the authors feel more effort is needed to boost the quality of minority education and the staying power of minority students once they have gained access.

4:3.0/80-1

The Condition of Education for Hispanic Americans, George H. Brown, Nan L. Rosen, Susan T. Hill, and Michael A. Olivas, 268 pp. (National Center for Education Statistics, Washington, D.C.).

This descriptive report brings together from existing data statistical information concerning the educational participation and achievement of Hispanic Americans. It then organizes and interprets this information.

Chapter One provides an overview of Hispanic Americans in the United States. It discusses the problems of defining Hispanics and Hispanic subgroups, and presents general information on the size of the Hispanic population, their age and geographical distribution, and their school enrollment status. Chapter Two deals with elementary and secondary education. Chapter Three covers postsecondary education and includes such topics as enrollment data, degrees awarded, and characteristics of students. It includes 46 charts/tables on topics as diverse as Hispanic participation in postsecondary and adult education, selected characteristics of institutions of higher education with 4,000 or more Hispanic students, distribution of first professional degrees for Hispanics and whites by discipline, and Hispanic and white faculty by rank and tenure.

The fourth chapter, "Outcomes of Education," relates the status of Hispanic teenagers and adults in American society to their education. Included are such topics as: employment by broad occupational category, unemployment rates, post-high school experiences, and income levels. Throughout the report, data on Hispanics are compared with data on non-Hispanics to provide an interpretive context.

This document is excellent in its presentation of statistical and demographic information about Hispanics. It provides more than 100 informative charts and tables and presents the available data in a most intelligible way.

4:3.0/80-2

A Losing Battle: The Decline in Black Participation in Graduate and Professional Education, J. Christopher Lehner, Jr., 69 pp. (National Advisory Committee on Black Higher Education in Black Colleges and Universities, Washington, D.C.).

The task of the National Advisory Committee on Black Higher Education in Black Colleges and Universities is to advise Federal policymakers on "all aspects of the higher education of black Americans." This is one of the Committee's reports.

The publication presents 1976 and 1978 data showing the deteriorating involvement of black students in graduate and professional education. The evidence shows that black participation in graduate and professional education not only remains low (5.7 percent in 1978), but has actually fallen from a 6 percent rate of participation in 1976. Among medical students, black enrollment has fallen to its lowest level since 1972-73. The Committee attributes the low participation rates to inequalities in the awarding of Federal and institutional financial support, demonstrating through data that blacks receive few fellowships and assistantships and are more dependent than whites on their own earnings for support. Although historically black colleges represent only 3 percent of the Nation's graduate schools, they account for more than 18 percent of all black graduate students.

The report documents the decline, advances reasons for it, and then recommends strategies to correct the situation and to increase Federal and institutional commitment to equity in graduate and professional education.

4:3.0/80-3

Minorities in Two-Year Colleges: A Report and Recommendations for Change, 63 pp. (Institute for the Study of Educational Policy, Howard University, Washington, D.C.).

This volume is the "executive summary" of another publication, *The Dilemma of Access: Minorities in Two Year Colleges,* by Michael A. Olivas (see 22:2.2/79-1). The summary report begins with an annotated list of 18 recommendations for change. Chapter One offers institutional statistics on minorities in 2-year colleges, and Chapter Two follows up with statistics on student characteristics. Using these statistics, the authors show the disproportionate number of full-time minority students who achieve access to 2-year colleges, which receive lower per capita appropriations and subsidies than 4-year colleges. The reasons given for the high enrollment of minority students in 2-year colleges include proximity, open admissions, convenience, and low cost.

Chapter Three cites statistics on enrollment patterns of minorities in 2-year colleges. Faculty, administration, and trustees are the subjects of Chapter Four, with Chapter Five covering minority students and academic and support services. The final chapter considers several technical, conceptual, and political issues concerning racial and ethnic educational data.

This summary of two larger Institute monographs contains references to more fully documented issues concerning minorities in higher education. *Minorities in Two-Year Colleges: A Report and Recommendations for Change* is a concise presentation of the data and underlying issues dealing with the subject.

4:3.0/79

Elusive Equality: The Status of Black Americans in Higher Education, Lorenzo Morris, 369 pp. (Howard University Press, Washington, D.C.).

This report is the third in a series put out by the Institute for the Study of Educational Policy at Howard University on the progress of blacks in higher education. Progress in obtaining equal opportunity is measured in terms of access, distribution, and persistence. The concern is with Federal policy, and the analysis of data looks at what Federal policy is doing to promote or fail to promote equal opportunity. Data sources are both primary and secondary, but the report leans, of necessity, on data reported by Federal agencies—U.S. Census Bureau, National Center for Education Statistics, and the Office for Civil Rights.

Morris concludes that equal opportunity "progress in all areas of higher education has slowed down, and in areas like professional education, it has come to a standstill." He attributes the lack of progress primarily to "no clear national policy of equal opportunity; there is only a collection of loosely defined programs. Consequently, measuring and promoting progress for blacks has been a little like putting out brush fires: when racial inequalities in one place are dealt with, unseen inequalities emerge in other places."

Nearly a hundred tables and figures present a wealth of data. The author is understandably concerned with documenting the lack of opportunity, but he consistently marshalls the analysis to demonstrate the conclusion that progress for blacks is less than that portrayed by some recent reports. The author is making the point that so-called "objective" analysis is not always objective: "Social values penetrate statistical methods." This book offers the reader an opportunity to compare the "objectivity" of traditional social science with some alternative analyses. To his credit, Morris usually makes clear his reasons for questioning reports of progress that make the system seem more egalitarian than he thinks it is. For example, "Unfortunately, many critics have been so impressed by the newly erected monument to equal opportunity that they have failed to recognize that the foundations are the same as those which for centuries have perpetuated a structure of inequality of opportunity."

4:3.0/78-1

The Schooling of Native America, Thomas Thompson, ed., 192 pp. (American Association of Colleges for Teacher Education, Washington, D.C.).

This volume is a collection of essays written by Native Americans intimately involved in Indian education. They discuss the problems and challenges in Indian education today, from the need for political mobilization to the planning and administration of Indian demonstration schools and programs in Native American studies. The following chapters are of particular interest to postsecondary educators and planners: "Why Do Indian Students Drop Out of College?"; "Native American Studies, the University, and the Indian Student"; "Teachers for Indian Students."

The publication is both a scholarly document and a manifesto of convictions.

4:3.0/78-2

Special Programs for Female and Minority Graduate Students, Frank J. Atelsek and Irene L. Gomberg, 33 pp. (Higher Education Panel Report, American Council on Education, Washington, D.C.).

This report summarizes the results of a survey that examined the extent to which academic institutions currently provide special assistance to women and minorities for graduate study. Some facts highlighted by the report include the following. Forty-six percent of colleges that award a degree beyond the master's had at least one formal program specifically designed for female or minority graduate students. Special recruitment or admissions efforts were made at 39 percent of the institutions; special financial aid programs were run by 35 percent; and special academic assistance was given by 24 percent. Public institutions were more active than private institutions in special efforts for women and minorities, and universities were more active than 4-year colleges. Schools of law and medicine were the most active fields of graduate study in providing special programs for both women and minorities.

The survey results are presented in tabular form, with tables on the types of special programs for female or minority graduate students in department such as engineering, health professions, and law.

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4:3.0/77

Minorities in U.S. Institutions of Higher Education, Frank Brown and Madelon D. Stent, 178 pp. (Praeger Publishers, New York).

Using several sources of data (most current through the mid-1970's), the authors attempt to determine the social and psychological benefits gained by minorities from attending U.S. institutions of higher education and the characteristics of those minority students. Among the variables considered are: numbers enrolled; courses studied and degrees attained; and deterrents encountered, such as poverty and racism. The major groups examined are American Indians, blacks, Asian Americans, and Hispanic Americans. The book is rife with tables—income tables, enrollment tables, population tables—all of which form a picture of minority underrepresentation in U.S. institutions of higher education.

The strength of this book lies in the critical examination of the data, often compiled from several sources—the American Council on Education, the Department of Health, Education, and Welfare, and the 1970 census. The authors also weigh several factors before reaching their conclusions. For example, one group appeared to be overrepresented in undergraduate institutions in relation to their overall population. A review of the percentage graduated from high school, however, showed them to be underrepresented.

The authors also identify the special problems minorities have in entering the various graduate disciplines and examine minority matriculation in five states (Texas, California, Florida, Illinois, and New York), noting correlations between attendance and public funding. Concluding chapters review various state and Federal funding programs, evaluate the interaction of minorities on the campus, and make recommendations for increasing representation of underrepresented minorities.

The book is one of the most up-to-date analyses of the status of minorities in institutions of higher education. It shows planners what to expect from incoming classes and how they can change the odds. It includes a bibliography.

4:3.0/76

Minority Group Participation in Graduate Education, National Board on Graduate Education, 272 pp. (National Academy of Sciences, Washington, D.C.).

This study was undertaken by the National Board on Graduate Education in order to "assist in policy formulation, program planning, and specific actions designed to reduce barriers confronting minority group members as they seek graduate education and to develop a hospitable academic environment that will encourage the success of those who enroll."

A 25-page executive summary contains the Board's conclusions and recommendations. The conclusions are the result of an analysis of minority participation (based mostly on data up to 1973-74) and various barriers (categorized as financial, educational, psychosocial, and cultural) on the one hand, and an analysis of the current situation from the perspective of graduate institutions on the other. The latter includes discussions of the declining labor market, affirmative action, legal issues, need for supportive services, etc.

Other sections of the study contain discussions of the efforts of other agencies and organizations, including Federal agencies, states, professional societies, philanthropic foundations, and business and industry to increase minority participation. The final chapter is an abridged version of a report on black graduate schools prepared by the Conference of Deans of Black Graduate Schools.

4:3.0/74

Desegregating America's Colleges: A Nationwide Survey of Black Students, 1972-73, William M. Boyd, 110 pp. (Praeger Publishers, New York).

This volume presents the results of a survey of reactions to the black experience on white campuses. The survey included 785 black students and 194 black and white faculty members at 40 predominately white colleges and universities across the United States. Black employees of the Educational Policy Center conducted the interviews, with the expectation that candid reactions could be obtained.

The characteristics of black students and their reactions to their college experiences are described in early chapters. Issues such as perceived faculty attitudes toward blacks and separatism on campus (including black housing) are candidly discussed. One chapter describes differences in perceptions between staff members and black students, revealing that students are, in general, better satisfied than faculty think they are. Nevertheless, much remains to be done to accommodate the needs of black students at white universities, and 18 recommendations suggested by the data are presented in the final chapter.

4:3.0/71

Minority Access to College, Fred E. Crossland, 139 pp. (Schocken Books, New York).

"Higher education," writes the author of this readable overview of the minority access problem, "has functioned as the chief instrument of social mobility for every ethnic group in American society, except for ethnic groups that are not White." The deprived ethnic groups include blacks, Mexican Americans, Puerto Ricans, and American Indians. In the academic year 1970-71, they represented less than 10 percent of the Nation's total college enrollment. Blacks, by far the largest of these groups, receive the major attention in this study.

The decreasing enrollment in traditional black institutions (TBI's) has raised questions as to the value of maintaining them. The status of TBI's, once the "primary educational resource" for black Americans, has diminished in direct proportion to minority enrollment in other institutions. The author feels, however, that TBI's play an important role: that of preparing black and other youth to cope in a "complex, multi-racial, multi-ethnic society."

The steady influx of minority students into institutions other than TBI's has presented problems to both students and institutions. Students encounter the following barriers: (1) adverse grading and testing policies, (2) academic difficulties due to poor preparation, (3) lack of money, (4) geographic distance from good colleges, (5) lack of motivation to continue, and (6) racial hostility on the part of faculty, administrators, and peers.

The efforts of many institutions to deal with these barriers are often ineffective. The author notes, however, that some strides have been made, largely because of institutional efforts. What is needed now, he continues, is organization on the part of secondary and postsecondary institutions, and more state and Federal planning and financial support.

See also: 19:1.0/77-1 **Selective Admissions in Higher Education,** Carnegie Council on Policy Studies in Higher Education.

4.0 HANDICAPPED*

4:4.0/A

Yearbook of Special Education, Glen R. Thompson, ed., 442 pp. (Marquis Academic Media, Chicago).

This book, a yearly publication, collects and organizes material on issues of special education. The 1980-81 edition stresses reports on current implementation of support laws, the promise of current research and technology, and issues such as mainstreaming.

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* *See:* Topic 21: Campus and Building Planning, Subtopic 2.0: Environmental Issues; and Topic 36: Space Management and Projection, Subtopic 2.2: Access for Handicapped, for information on the architectural considerations involved in accommodating the handicapped in institutions of higher education.

Over 80 articles by different authors cover many of the current issues being debated about special education. General topics include: (1) minimum competency testing, (2) physically handicapped, (3) speech and hearing impaired, (4) blind and visually impaired, (5) learning disabled, (6) mentally retarded, (7) emotionally disturbed, (8) gifted and talented, (9) the professionals (those working in related fields), (10) rights and litigation, and (11) subject and geographic indexes.

The book is primarily a basic reference document. While much of its content centers on policy issues directly related to elementary and secondary education, the document does provide valuable insights into the consequences for higher education. For example, it includes articles on "Preservice Changes in Teacher Education Relative to Mainstreaming," "Liberal Education for the Handicapped," and new thoughts regarding the preparation of professionals who will work with the handicapped.

4:4.0/79-1

Disability: Our Challenge, John P. Hourihan, ed., 190 pp. (Columbia University Press, New York).

In the spring of 1978, the Regional Education Program for Handicapped College Students—based at Teachers College, Columbia University—sponsored a lecture series on topics of vital interest to the handicapped. The topics included employment, civil rights, education, social service, and recreation and leisure. The lecturers, themselves disabled educators, serve as both role models and experts on the education of the disabled.

The tone of this publication, presented in lecture format, is conversational, emotive, and personal. It offers the insights of accomplished educators with various disabilities of their own. Two articles on the civil rights of handicapped persons contain information on pertinent legislation as court cases, as does John J. Gavin's article on employment of the disabled. The segment of the book that specifically addresses higher education emphasizes "Liberal Education for the Handicapped" and "Education in Dentistry and the Health Professions."

4:4.0/79-2

Assuring Access for the Handicapped, Martha Ross Redden, ed., 121 pp. (Jossey-Bass, San Francisco).

This book resulted from the work of 23 major higher education associations and consumer organizations that work with handicapped persons. Their efforts are coordinated through a project entitled Higher Education and the Handicapped (HEATH). Chapters are written by students, faculty members, campus administrators, and association staff members.

The first two chapters, written by students, give personal views and practical suggestions about the responsibilities of students and professors in dealing with access. Relationships between handicapped students and professors are stressed. The remaining chapters, prepared by people who have worked with the HEATH Project, deal with the practical concerns of faculty members and administrators, such as answers to legal questions about Federal regulations, examples of institutional reactions, and advice about the materials and assistance available from the HEATH Project.

4:4.0/78

Guide to the Section 504 Self-Evaluation for Colleges and Universities, Richard G. Biehl, 127 pp. (National Association of College and University Business Officers, Washington, D.C.).

This volume is a functional, well-written guide to compliance with Section 504, which calls for equal access to educational institutions for the handicapped. It provides a self-evaluation procedure that, when completed, should become an institution's "master plan" for abolishing discrimination and achieving equal access for the handicapped.

The book points out that compliance need not be a painful process, and it discourages separate programs and activities. Rather, the handicapped must be provided access to existing programs. Creating the proper atmosphere and attitudes at institutions will make handicapped persons better able to help themselves.

In the first section, key terms are defined, general provisions outlined, and U.S. Department of Health, Education, and Welfare regulations listed. A separate section on "program accessibility," the key term in Section 504, clarifies the difference between program accessibility, which is required by law, and a barrier-free environment, which is not. The final section, entitled "Implementing the Plan," deals with finances. An appendix gives additional sources of information and technical assistance.

4:4.0/77

Planning for Accessibility: A Guide to Developing and Implementing Campus Transition Plans, Margaret Milner, 86 pp. (Association of Physical Plant Administrators of Colleges and Universities, Washington, D.C.).

In the author's words: "This manual has been prepared to assist college and university administrators in making their campus facilities accessible to physically handicapped students, faculty and staff." In recognition of the uniqueness of each campus, the author presents general guidelines and recommendations for action as starting points from which each institution can model a program responsive to its own needs.

In order to comply with Section 504, which calls for equal access to all university programs, many campuses must make changes to accommodate handicapped students who are taking advantage of the revolution in accessibility of higher education. After access has been made possible, the problem becomes one of publicizing the program. This volume deals with a program handbook and suggests methods for reaching into the community.

The appendix includes sample documents, surveys for implementation of guidelines, and other relevant references.

5.0 UNDERPREPARED STUDENTS

4:5.0/80

Teaching Basic Skills in College, Alice Stewart Trillin et al., 327 pp. (Jossey-Bass, San Francisco).

This book is a synthesis of ideas and teaching techniques that the authors considered successful when applied in the basic skills programs offered by City University of New York (CUNY). The book addresses four major skills areas: writing, reading, English as a second language, and mathematics. Each chapter of the book is written by a specialist in the subject area. The final chapter is devoted to program evaluation.

Six basic questions are addressed for each area: (1) What are the objectives of the skills programs in this area? (2) What are the different skills levels of entering students, and how can these levels be determined? (3) What should be taught at each skills level? (4) What teaching methods are most appropriate for each skills level? (5) How can the scope and effectiveness of current skills teaching be determined? (6) How should a skills program in this area be administered?

The value of this book to professional staff is its description of successful practices in teaching underprepared students. It is written by teachers and for teachers, and it grew out of the trial-and-error experiences of a basically traditional faculty attempting to find new ways to deal with the challenge of underprepared students.

See: 38:3.0/79 **Improving Student Learning Skills,** Martha Maxwell.

This book is a comprehensive guide to strategies for increasing the performance of underprepared students. It is based on the experiences of the author in working with learning problems over a long career as counselor, teacher, academic adviser, reading specialist, researcher, and administrator.

In this book, she discusses the nature and causes of learning problems, strategies for their prevention and treatment, and programs that have been developed to help overcome the problems.

Part One provides the historical background for remediation in American colleges and presents an overview of the role of remedial programs today. Part Two, "Organizing Successful Programs," presents ways of organizing learning-support services through tutorial programs and learning centers. The six chapters in Part Three focus on understanding the characteristics of underprepared students and preparing programs to help them improve their skills in reading, writing, studying, mathematics, and science. The final segment, "Resources," lists available tests, publications, and forms that program directors and instructors might find useful.

In general, 4-year colleges will probably find Maxwell's approach more useful than will public community colleges dealing with large numbers of underprepared students. The strength of the book lies in its comprehensive treatment of the subject and the author's extensive professional experience.

4:5.0/77-1

Handbook on Open Admissions: Success, Failure, Potential, Ann Folger Decker, Ruth Jody, and Felicia Brings, 161 pp. (Westview Press, Boulder, Colo.).

This handbook describes the open admissions experience of City University of New York (CUNY) in 1973. The authors evaluate the problems, solutions, and administrative policy attendant upon the new experience, including the physical chaos of sheer numbers, the curriculum revision demanded by new kinds of students, and faculty and administrative adjustments.

The issue of lowered standards versus greater opportunity is well-handled, and the volume systematically discusses the difficulties of the new students, the primary one being a lack of basic skills. Discussions on solutions include testing, remedial courses, and advising, all described in respective chapters. The sections dealing with "The CUNY System" and with "Maintaining Standards" will be of particular interest to planners.

The experiences of CUNY are widely applicable since many universities grapple with similar problems regarding open admissions.

4:5.0/77-2

Overcoming Learning Problems: A Guide to Developmental Education in College, John E. Roueche and Jerry J. Snow, 188 pp. (Jossey-Bass, San Francisco).

"The problems associated with remedial education in college will not go away. In fact, the 'problems' get more awesome each year as more and more students enter college without the verbal and quantitative skills needed to enroll, let alone succeed, in freshmen level courses." With that statement, John E. Roueche and Jerry J. Snow introduce their book, which describes trends and practices in collegiate remedial offerings collected from a survey of some 300 2- and 4-year institutions. These findings are related to earlier surveys and to theory and research about learning problems.

Roueche is an experienced authority on remedial education, and perhaps one of the most useful sections of the book describes 12 programs—six in 2-year colleges and six in 4-year colleges—that the authors rate as "exemplary." These programs offer good evidence that remedial approaches can be designed to "promote high retention and achievement with large numbers of non-traditional learners."

This fairly short, readable book offers planners an overview of what is being done and what can be done to meet the challenge of underprepared students.

4:5.0/76

Accent on Learning: Improving Instruction and Reshaping the Curriculum, K. Patricia Cross, 291 pp. (Jossey-Bass, San Francisco).

This book contains useful applications of research and theory for improving learning across the broad spectrum of higher education, but its major concern is for instruction and curricula that improve education for underprepared students. The book was awarded the American Council on Education Book Award for the best book in higher education in 1976.

This volume is really a sequel to Cross's earlier book, *Beyond the Open Door,* which described the needs and characteristics of underprepared students. *Accent on Learning* makes some recommendations for designing educational programs to meet these needs. The author searched the literature of education, psychology, and sociology for research findings that would shed light on the problems of low achievers and "turned off" learners, and then presented the implications of the research and theory for practice. Over 1,000 studies were reviewed, and an extensive bibliography contains citations for much of the recent literature relevant to learning for personal development as well as for academic competence.

Educators interested in some of the recent teaching and learning innovations will find evaluations and sources of further information on the following: individualization of instruction; mastery learning; computer-assisted and computer-managed instruction; self-paced learning; cognitive styles; programmed instruction; audio-tutorial methods; Personalized System of Instruction, or the Keller Plan; intellectual and moral development; laboratory education or sensitivity training, and micro-teaching.

This book is concerned with providing educational opportunity through changing instruction and curriculum rather than through facilitating access via financial aid, counseling and guidance, etc. As such, it is more relevant to planners working with faculty and administrators on program design and faculty development than to planners concerned about attracting new clientele into institutions of postsecondary education.

4:5.0/73

"The Case for Open Admissions," Timothy Healy, Edward Quinn, Alexander W. Astin, and Jack Rossman, *Change*, Vol. 5, No. 3, Summer, pp. 24-37.

This reference consists of three journal articles describing the open admissions "crisis" at the City University of New York (CUNY) in the early 1970's. It is included here because although things have changed somewhat at CUNY, many of the anxieties and doubts about open admissions at CUNY in 1973 still exist in many parts of the country. This set of articles articulates the problems in a sensitive and realistic manner that helps put planning for equal opportunity for underprepared students in perspective.

Articles by Timothy Healy—who was vice-chancellor for academic affairs at CUNY—and Edward Quinn—a professor of English at New York City College, CUNY—present administrative and faculty perspectives in essays that capture the spirit of the times in delightful prose. The third article presents research data collected during CUNY's first year of open admissions.

4:5.0/72

Higher Education and the Disadvantaged Student, Helen S. Astin, Alexander W. Astin, Ann S. Bisconti, and Hyman Frankel, 359 pp. (Human Services Press, Washington, D.C.).

This study uses two sources of information: case-study data from 19 institutions operating special programs for disadvantaged students, and longitudinal self-report questionnaires from students in special programs or from disadvantaged backgrounds collected by the American Council on Education from 1966 to 1969.

The outdated information and the institutions' inexperience in operating special programs in those early years make this study limited in its usefulness today. However, the section on implications for educational policy and guidelines for program development still contain relevant reminders regarding student characteristics and institutional response.

4:5.0/71

Beyond the Open Door: New Students to Higher Education, K. Patricia Cross, 200 pp. (Jossey-Bass, San Francisco).

This book calls for new educational approaches to serve the needs of large numbers of underprepared students entering open-admissions colleges. It is written for planners, faculty, and administrators, and its purpose is to document some of the differences between "traditional" and "new" students in their approaches to learning.

Basic data for the book derive from four large national questionnaire surveys, involving from 9,000 to 400,000 high school students and graduates. For each of the four data banks, students graduating in the lowest academic third of the high school class (new students) are contrasted with those graduating in the top third (traditional students). Variables discussed are broad, ranging across interests, attitudes, motivations, self-concepts, aspirations, and achievements.

This book is specifically concerned with the challenge to colleges posed by students with poor past records of academic achievement. While ethnic minorities are overrepresented in this group, the majority of underprepared students are white first-generation college students who are the sons and daughters of blue-collar workers. Most of these low academic achievers are entering community colleges and other nonselective forms of postsecondary education.

Most of the chapters in *Beyond the Open Door* integrate data across the four national studies to describe the characteristics of "new students." Several chapters, however, discuss related topics such as national egalitarian trends in higher education and theories about self-concept and the fear of failure. Chapters on the characteristics of ethnic minorities and women are included, even though these groups are not necessarily synonymous with low academic achievers. A final chapter makes some recommendations about how open-admissions colleges should deal with the challenge of nonselected student bodies.

4:5.0/70

Postsecondary Education and the Disadvantaged: A Policy Study, Amitar Etzioni, 131 pp. (Center for Policy Research, New York).

This classic study sets forth essential concepts and analyzes sociological data and research on compensatory education for the disadvantaged. Divided into three sections, the study examines alternatives and makes recommendations for policy.

The first section, written by Amitar Etzioni, examines black studies from the perspectives of undergraduate and graduate specialization, bridging education, and social centers. The second section, written by Irene Tinker, concentrates on goals, agendas, and policies concerned with programs for the underprepared and for pre-college students, as well as with motivational, intensive and remedial, and compensatory programs. The third section is an annotated bibliography.

Although the information is somewhat dated, this study deals less with the application of statistics than with the concepts and theories that continue to be relevant.

6.0 WOMEN

4:6.0/S

The Project on the Status and Education of Women, Bernice R. Sandler, Association of American Colleges, Washington, D.C.

The Project on the Status and Education of Women of the Association of American Colleges provides a clearinghouse for information concerning women students and staff in education. The major work of the project is the development of information packets that can be used by higher education institutions to develop procedures assuring educational equity for women.

Each packet contains five to seven documents addressing a given topic; packets currently available are on minority women, rape and sexual harrassment, Title IX, Title IX and sports, students, faculty, and administrators. Because of the current interest in reentry women, special packets have been prepared on this topic; they cover financial aid, child care, counseling, recruitment, and admissions. There is also a packet containing information about resources—e.g., women's centers, organizations—that may provide useful services.

4:6.0/81

Sex Equity in Education: NIE Sponsored Projects and Publications, Compiled by Susan S. Klein, 313 pp. (National Institute of Education, Washington, D.C.).

This volume is a collection of abstracts of sex equity projects funded by the National Institute of Education (NIE) and abstracts of NIE-sponsored sex equity publications. The purpose of the publication is to facilitate communication among researchers and others about current research and development in the field.

Projects promoting sex equity cover a wide range of issues: (1) women in mathematics and science; (2) sex equity in careers and employment; (3) sex equity in elementary and secondary school practices; (4) women with special needs; (5) women educators; (6) women and minorities in higher and continuing education; and (7) general projects on sex equity.

NIE-sponsored publications on sex equity include those titles available through NIE and through the Educational Resources Information Center (ERIC).

4:6.0/80

Returning Women Students in Higher Education: Defining Policy Issues, Carol Kehr Tittle and Eleanor Rubin Denker, 213 pp. (Praeger Publishers, New York).

This book is an excellent and comprehensive overview of information for policymakers who must provide for the needs of reentry women. The best description of the contents of this book is contained in the chapter headings: (1) "Women in Higher Education: The Past and The Present"; (2) "Returning Women: Characteristics, Goals, and Barriers to Returning"; (3) "Programs and Services for Returning Women"; (4) "Developing and Disseminating a Community College Preadmission Counseling Program"; (5) "The EPWIS Program: Preparing Women to Return to a Career in Science"; (6) "The Theoretical Context of Returning Women: Vocational and Developmental Perspectives"; (7) "Vignettes of Returning Women"; (8) "Themes for Returning Women"; (9) "Developing a Responsive Climate: Institutional and Public Policy Issues."

The narrative is well documented with references from the research literature on reentry women. The authors augment the narrative with appropriately placed tables that illustrate key concepts.

The book concludes with an excellent bibliography that contains over 250 citations of related literature.

4:6.0/79

Women in Academe: Steps to Greater Equality, Judith M. Gappa and Barbara S. Uehling, 89 pp. (ERIC Clearinghouse on Higher Education, Washington, D.C.).

This monograph reviews research and literature about women students and professional staff in higher education, using data from 1969 through 1972. Gappa and Uehling report that although progress toward equity has been made by women in higher education, their status as students and employees is still not equal to that of men.

The monograph contains information and statistics on constraints that affect women's access to and participation in academe. It surveys data about women students, faculty, and administrators; it reviews legislation pertaining to the rights of women in higher education; and it examines the state of enforcement efforts.

In the final section, the authors recommend steps that can provide greater equality for women in higher education: (1) expand the information base through further research at national, regional, state, and institutional levels; (2) provide incentives for change; (3) eliminate barriers that impede or constrain women's participation; (4) create new institutional services; and (5) provide a continuous review of progress and additional efforts to improve the status of women in higher education.

The authors also recommend that programs be developed from the collaborative efforts of men and women within institutions, and that less reliance be placed on enforcement agencies and the courts. In their opinion, "When equality of opportunity is achieved, women will not be constrained by early socialization experiences, social and economic factors, institutional policies and practices, or any factor other than ability, they end with recommendations for programs, research projects, and legislation to ensure more equal educational access for women.

Unable through time constraints to conduct many of their own surveys, the authors do a good job of synthesizing and interpreting existing data. Although they draw no monumental conclusions, they give a good indication of trends among college students in the 1970's.

4:6.0/75

Barriers to Women's Participation in Postsecondary Education: A Review of Research and Commentary As of 1973-74, Esther Manning Westervelt, 76 pp. (U.S. Department of Health, Education, and Welfare, Washington, D.C.).

This report offers a good, succinct overview of the research up to 1974 on women's participation in higher education. It is divided into three sections, one dealing with institutional barriers, one with social constraints, and one with psychological factors.

Institutional barriers in areas such as admissions, financial aid, housing, and others subject to the direct control of colleges and universities are given the most attention, and it is this discussion that will be of greatest interest to planners. Another valuable contribution of this overview is the perspective it gives by placing institutional barriers to equal educational opportunity for women in the context of barriers erected by social attitudes about women's roles and the psychological conflicts that women face in balancing traditional roles and expectations with new models and pressures for achievement.

4:6.0/73

Opportunities for Women in Higher Education: Their Current Participation, Prospects for the Future, and Recommendations for Actions, Carnegie Commission on Higher Education, 282 pp. (McGraw-Hill Book Co., New York).

This Carnegie Commission report begins with the observation that at each "gate" to successive key points of advancement in the academic world, the percentage of women declines. Extensive charts and data illustrate the paths of women through the educational system as entrants to college, undergraduates, graduate and professional students, faculty members, and administrators. The special problems at each stage of education are explored, usually through statistical charts and tables, and recommendations are made for overcoming these problems at each successive level.

Two final chapters discuss the issues of affirmative action (including legal background, case histories, and policy considerations) and needed campus facilities such as continuing education and child care centers.

Although books that present substantial data tend to become dated rather quickly, the problems discussed in this volume still exist, and the recommendations are as relevant now as they were in 1973. This volume probably remains the single best information resource on the education of women within the traditional framework of higher education.

from access to and full participation in the services, educational programs, and benefits of higher education."

A 10-page bibliography makes this report a useful tool for other researchers of women in academe.

4:6.0/78

Putting Principle Into Practice: Guidelines for Administrators in Implementing Title IX, Donna Shavlik, Emily Taylor, and Judy Touchton, 45 pp. (Resource Center on Sex Roles and Education, Washington, D.C.).

This booklet synthesizes much of the literature on Title IX—the Federal regulation that prohibits sexual discrimination in student programs and in employment policy and practice in educational institutions receiving Federal funds—and discusses the responsibilities of high-level administrative personnel for implementing Title IX.

A primary value of this work lies in the statistics and studies cited on women in higher education, all of which clearly point to underrepresentation of women.

The booklet offers suggestions for achieving equity in hiring and in student programs, and poses questions for administrators as they evaluate institutional operation and possible areas of discrimination. Throughout the booklet, relevant sections of the regulation are noted, each followed by practical suggestions for implementation. Although the emphasis of this volume is on hiring practices, any volume dealing with equity in the institutional structure is tangentially beneficial to students seeking equal access.

The authors conclude with suggestions for more equitable hiring in light of Title IX, among them, guidelines for preparing job descriptions and for recruiting, interviewing, and screening candidates.

4:6.0/77

Women in Higher Education, W. Todd Furniss and Patricia Albjerg Graham, eds., 336 pp. (American Council on Education, Washington, D.C.).

A collection of brief essays prepared for the American Council on Education's 55th annual meeting, this book explores the role of women—as professors, students, and staff members—at American colleges and universities.

One of Yale University's first women undergraduates writes about being in the minority (8 to 1) at a newly coeducational school. A professor writes of her efforts to start an employment agency for women historians. A university president details some problems he has had initiating affirmative action. A president emeritus discusses her views on balancing the pursuit of a professional degree with marriage and motherhood.

These essays treat these other issues—i.e., the rate of promotion and the possibility of part-time work for women teachers; attrition rates among women faculty; maternity leave policies; and the fate of women's colleges.

Written by some of the most notable men and women in higher education, the essays form a well-rounded picture of the female academic in the mid-1970's, particularly of the areas in which she faces discrimination. Several of the writings suggest ideological shifts useful for planning and practical steps one can take to anticipate them.

The essays are lively, well-written, and thought provoking, and are recommended for anyone who wants a quick look at contemporary questions facing women in higher education.

4:6.0/76

Sex Discrimination in Education: Access to Postsecondary Education, Helen Astin, Michele Harway, and Patricia McNamara, 394 pp. (Higher Education Research Institute, Los Angeles).

This study attempts to identify factors that either facilitate or inhibit educational access for women, particularly at the postsecondary level. The authors look at the kind of high school courses women take, the grades they achieve, the kinds of institutions in which they enroll, and the major fields and careers they choose. The authors then compare these factors with similar ones for men and for racial/ethnic groups to see whether they affect access to educational institutions.

The personal and social backgrounds of women are also reviewed as possible contributors to the "generally lower educational and occupational aspirations and achievements of women." Moreover, the study looks for signs of discrimination in the way information on various educational opportunities filters down—through parents, guidance manuals, and counselors. Other areas reviewed for possible discrimination include the college admission process, attitudes of male faculty, and availability of financial aid. One chapter is devoted to the special problems of adult women returning to school.

Relying heavily on previous surveys (the study was conducted over a 9-month period), the authors conclude that despite their higher grades, women are less likely than men to go to college, and those who do may be more likely to select a less expensive, less prestigious school. Part of the reason is discrimination: schools lack female role models; institutional catalogs are biased toward men; schools encourage "traditional" women's majors that limit choice; and American society historically has given higher priority to education of men than to education of women.

Throughout the study the authors pose questions for further study;

5

Finance

David W. Breneman

Higher education finance involves both descriptive and judgmental features, i.e., who pays and who should pay. The descriptive side focuses on how the costs of higher education are met by support provided from the several levels of government (Federal, state, and local), from private sources through contributions and bequests, and from student payments of tuition and fees. The various forms in which support is provided are also included in the study of finance, e.g., grants, loans, tax subsidies, and payments to institutions or to students.

The judgmental side of finance involves analyses of how the cost burden should be distributed among the several sources. In this sense, higher education finance is a component of the broader field of public finance. Criteria commonly applied to cost distribution are efficiency and equity, the first through analysis of individual versus societal benefits and costs; and the second through analysis of the distribution of these beneftis and costs among the members of society.

The topic of finance is limited in this bibliography to the financing of *institutions* of higher education. The emphasis is on the aggregate financing of all or major groups of colleges and universities, not on the financial management of individual institutions. This focus excludes: the financing of students, which is treated in Topic 17, Student Financial Assistance; studies related to finance, such as the rate of return to investment in college education, which are part of Topic 3, Economics; and studies of institutional program costs, budgeting, and resource allocation, which are discussed in Topic 15, Resource Allocation and Budgeting, and Topic 20, Institutional Financing and Budgeting.

Finance is organized into six component parts.

General. These volumes investigate the financing of higher education generally, and are not limited to a particular level of government, type of institution, or instruction.

Federal Role. These studies concentrate on the Federal role in higher education finance, without reference to a particular type of institution or level of instruction.

State Role. This collection concentrates on the state role in higher education finance, including studies of public higher education systems but excluding special topics such as state support for private colleges.

Studies of Higher Education Segments. This section covers four segments of higher education finance, including: graduate education, medical education, private colleges and universities, and community colleges. This section is generally not limited to a particular level of government.

Financial Condition of Institutions. Investigations of the financial status of institutions are covered here, along with the possibility of remedial action.

Data Sources. Sources of statistical data on college and university finance are treated in this section.

TOPIC ORGANIZATION

5: Finance
  1.0 General
  2.0 Federal Role
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5.0 Financial Condition of Institutions
6.0 Data Sources

1.0 GENERAL

5:1.0/80

Subsidies to Higher Education, Howard P. Tuckman and Edward Whalen, eds., 301 pp. (Praeger Publishers, New York).

This interesting collection of articles examines the financing of higher education through the "grants" economy, an approach that stresses those forms of payment that are made without an explicit quid pro quo. In a foreword to the book, economist Kenneth Boulding observes that:

> As we move into higher education, the grants investment aspect of the operation becomes quite dominant for students in colleges and universities, who usually finance only a small part of the cost of their education, if any, by themselves. Mostly it is financed by a grant either from family or from society. Some of this may be a current consumer good, for it may be more fun in college than it is in the factory; but a great deal of it is investment in the hope of benefits in years to come. The willingness of society to do this—either through the family, college endowments, foundations, or the tax system—is very much a function of its length of time horizon and its sense of identity with the future. . . . The grants element in higher education makes it a little precarious because its dependence on the integrative structure of society over time, and proposals to shift it more into the exchange investment sector through educational banks, public loans, and the like, are receiving increasing consideration, especially where the individual returns are high, as in some professional education.

The 15 chapters in the book develop various aspects of this perspective on finance.

Representative chapters cover the following topics: "Grant Elements in Private Higher Education," by Richard K. Stuart; "Financial and Behavioral Implications of Federal Student Loan Programs and Proposals," by Stephen P. Dresch; "Who Qualifies for Financial Aid?" by Kenneth M. Deitch; "Cost, Benefit, and Envy: Alternative Measures of the Redistributive Effects of Higher Education," by Estelle James; and "Federal Regulations As Negative Grants," by Edward L. Whalen.

Other chapters cover such issues as: "The Impact of Federal Grants on Output and Employment in Universities," by David A. Katz; "Grant Elements in Faculty Mobility: Some Initial Interpretations," by Lewis C. Solmon; "The Effects of Tuition-Free Universities and Open Admissions on Higher Education: The New York Experience," by Raymond S. Franklin and William Hamovitch; "The Rationale and Impact of Corporate Giving to Universities: Advancing Free Enterprise," by William E. Becker, Jr.; and "Union Subsidies to Workers for Higher Education," by Ivan Charner. The concluding chapter, by Douglas M. Windham, examines "Public Responsibility for Higher Education: Policy Issues and Research Directions."

As with any collection, the quality of contributions is uneven. Nonetheless, readers will find the approach taken in most of the articles fresh and provocative.

See: 13:2.1/80 **The Costs of Higher Education,** Howard R. Bowen.

This study measures institutional costs for the education of students in terms of a standardized student unit. Using this measure, it is possible to calculate unit costs and thus to make long-term cost comparisons among institutions and groups of institutions, to study factors influencing cost, to examine the effect of institutional differences in cost on educational outcomes, and, ultimately, to reach some tentative answers to the question of how much higher education should cost in the 1980's and beyond.

The study is limited, however, to institutional costs for the education of students (i.e., the costs of instruction and departmental research, student financial aid paid from institutional funds, student services, and a pro rata share of academic support, institutional support, plant operation and maintenance, and mandatory transfers). It excludes costs for organized research, organized public service, auxiliary enterprises, and teaching hospitals, as well as personal expenses of students, including transportation, books and supplies, and forgone income.

A theme running through the study is that costs are determined by revenues. Viewing the matter from the standpoint of the higher education system, average cost per student unit is determined by the amount of money society chooses to spend relative to the prevailing mission or workload, by public attitudes about the importance of higher education, and by the competition of other uses for public and private funds. The same phenomenon, when looked at from the standpoint of a single institution, is that unit costs are determined by the amount of money the institution can raise relative to its mission or workload. And a major objective of virtually all institutions is to maximize unit costs.

Bowen conducted an intensive investigation of unit costs from 1929-30 to 1977-78 and found that cost per student unit (in constant dollars) declined slowly between 1929-30 and 1949-50 and again in the 1970's, but rose rapidly form 1949-50 to 1969-70. The last period, often called the "golden years," was an exceptional episode in the history of American higher education. The nation recognized the need not only to expand but also to improve the higher education system. The decline in unit cost over periods before and after the golden years reflected in part the dramatic expansion of the low-cost public sector of higher education relative to the high-cost private sector. The overall cost reduction was due in part to a structural change in the system. This change has been largely completed, and further cost reduction from this source is likely to be less pronounced in the future.

When the unit costs of institutions are compared, the most significant finding is the sharp differences in total cost per student unit. Some of the differences can be attributed to statistical anomalies and to subtle differences that are not recognized in the classifications of institutions. Yet no matter how much care goes into the statistics and into the classifications, substantial cost differences persist. These findings can be explained by the revenue theory of cost; namely, that institutions raise all the money they can and spend it all. The differences among institutions in the way they allocate their resources internally are also remarkable. On the basis of the data, one is hard put to identify a pattern of allocation that could be called normal.

See: 12:1.1/80 **Three Thousand Futures: The Next Twenty Years for Higher Education,** Carnegie Council on Policy Studies in Higher Education.

This volume is the final report of the Carnegie Council. The body of the report focuses on enrollment projections, disaggregated by state and by institutional type. Implications of enrollment changes are discussed for institutions, faculty, students, and Federal, state, and local governments. The text ends with a series of policy recommendations to the above groups.

The Council's general view on financing of higher education in coming decades is as follows: Higher education needs to reconcile itself to the unlikelihood of any massive new Federal programs. This places great emphasis on private support, which, over the long run, has been a falling component of support. The Carnegie Commission once suggested that it was reasonable to expect that tuition in public institutions be about one-third of instructional costs, offset by tuition scholarships on the basis of need. The exception would be community colleges, which should have comparatively low tuition. The Council considers this to be a proposal worthy of consideration. Several states now approximate these levels. Tax policies should encourage private gifts to colleges. And states should consider all private gifts as over and above their own contributions.

The Council proposes that state governments take the following actions: (1) prepare financing formulas that will encourage diversity and new initiatives, that make allowance for rising overhead costs per student as enrollments go down, and that permit institutions to keep the private funds they raise, (2) introduce state equivalents of the Fund for Improvement of Postsecondary Education (FIPSE); (3) stop preaudit controls over expenditures, emphasizing instead postaudit measurements of managerial performance; (4) ease the possibility of transfers of funds within institutions, preferably through lump-sum appropriations; (5) provide for portability of state financial aid to students; (6) step in, as necessary, to assist in mergers of institutions (which can be costly) and to help with close-outs (particularly the preservation of past records); (7) encourage more sophisticated advance estimates of enrollments than many states now have; and (8) assist interstate consortiums and cooperative use of facilities.

The Council argues that the Federal Government, in addition to providing financial aid to students, has a major role in maintaining the research capacity of higher education. The Council recommends that the Federal Government: (1) continue the present level of support for research in colleges and universities at approximately 12 to 13 percent of total Federal support of research and development (R&D), while raising total Federal support of R&D to about 1.8 percent of the GNP, which it averaged in the 1960's; (2) establish a Fund for the Encouragement of Young Scientists to assist the flow of young scientists into faculty positions in selected fields in universities, either directly or through absorption of all or part of the costs of existing tenure positions; (3) encourage, through appropriate tax policies, industry and foundations to grant research funds to universities; (4) introduce a policy to support research libraries and other research resources, including computers, by including within overhead on research contracts a standard 5 percent allowance for this purpose; (5) adopt policies to target student self-help, and assist the states with State Student Incentive Grants; and (6) gradually increase the funds allocated to FIPSE.

See: 12:1.3/80 **A Program for Renewed Partnership: The Report of the Sloan Commission on Government and Higher Education,** Sloan Commission.

This volume, prepared by the 22-member Sloan Commission on Government and Higher Education, is a wide-ranging report covering both financial and regulatory issues governing the relationships between higher education and state and Federal Governments. In preparing its report, the Commission was assisted by a small professional research staff; and it commissioned a number of outside studies as background for its recommendations.

Chapters in the report cover the following topics: Chapter 1, "Overview and Summary of the Recommendations"; Chapter 2, "The Context of the Problems"; Chapter 3, "Federal Regulation"; Chapter 4, "Role of the States"; Chapter 5, "Financial Aid"; Chapter 6, "Federal Support for Academic Research"; and Chapter 8, "Why Should We Care?" Two appendixes complete the volume. The first lists the numerous studies prepared for the Commission, most of which are available separately through the ERIC system, and the second provides source materials and detailed tables that support chapters of the report.

The Commission was created in 1977, by the Alfred P. Sloan Foundation, in response to increasing concerns being expressed on the Nation's campuses about the growing costs and intrusiveness of government regulations in the life of colleges and universities. In Chapter 3, the Commission examines Federal regulations as they bear on colleges and universities, and proposes that the several Federal agencies now involved be combined into a single council for Equal Opportunity in Higher Education. In discussing state regulations in Chapter 4, the Commission advances its most controversial recommendation, calling for periodic quality reviews of educational programs at *public* colleges and universities. These reviews, to be conducted by academic peer groups, are intended to offset the tendencies toward dilution of quality prompted by increased competition for students and resources. While urging private institutions to participate as well, the Commission does not recommend that private colleges be subject to the reviews as a requirement for receiving state support. Unfortunately, the furor created over this proposal has tended to distract attention from the rest of the report, reducing the impact of its financial proposals.

The strongest chapters are 5 and 6, dealing with student financial aid and the Federal support of academic research. Noteworthy are proposals to integrate educational benefits from military service with existing Federal student aid grants, eliminate Social Security benefits for students, create a Federal Undergraduate Merit Scholarship program providing 3,000 scholarships annually, and consolidate loan programs into a National Educational Loan Bank. Recommendations for research support include continuance of the peer review process, transfer of financial oversight of all academic research grants to a new Office of Inspector General attached to the National Science Foundation, and support for postdoctoral fellowships and research facilities grants.

5:1.0/73-1

Financing Postsecondary Education in the United States, National Commission on the Financing of Postsecondary Education, 442 pp. (U.S. Government Printing Office, Washington, D.C.).

The National Commission on Postsecondary Education was mandated by Congress as a result of the acrimonious debates that accompanied the Education Amendments of 1972, particularly over the need for Federal institutional aid. The 17-member Commission included two U.S. senators and 2 U.S. congressmen.

Although the Commission did not present its own set of financing recommendations, its members argued that their major contribution was the creation of an "analytical framework" for evaluating alternative financing schemes. This framework included the specification and operational definition of eight objectives for postsecondary education—student access, student choice, student opportunity, educational diversity, institutional excellence, institutional independence, institutional accountability, and adequate financial support. Also included was a simple interactive computer model of the student access and choice objectives, drawing on econometric estimates of the effect of price on student decisions.

This report contains detailed chapters that describe fiscal 1972 financing patterns and evaluate their success in achieving the eight objectives. In line with these objectives, the Commission evaluated eight finance recommendations using the computer model to simulate the impact of the proposals on student enrollment patterns and institutional finance. (Institutions were grouped for analysis by Carnegie Commission classification.)

Separate chapters review the incidence of financial distress among institutions and discuss procedures for developing standard methods for institutional cost determination and data reporting. The book ends with a short section of conclusions and recommendations, coupled with individual comments by Commission members.

Several staff reports were published separately. Of most interest to those who wish to learn more about the computer model is *A Framework for Analyzing Postsecondary Education Financing Policies*, by Daryl E. Carlson, James Farmer, and George Weathersby (U.S. Government Printing Office, 1974).

The Commission's impact on Washington policymaking has been limited; the computer model has not been used extensively, and many of the recommended data bases have not been developed. The Commission's work did help to introduce certain analytical techniques and findings into the policy arena, however, and several states have emulated the Commission's procedures in conducting state financing studies. Although the data are outdated and Federal aid programs and policies have changed in intervening years, the report remains ''must'' reading for those who want a comprehensive grasp of how postsecondary education is financed in the United States.

5:1.0/73-2

Higher Education: Who Pays? Who Benefits? Who Should Pay?

Carnegie Commission on Higher Education, 190 pp. (McGraw-Hill Book Co., New York).

Published in 1973 at roughly the same time as the Committee on Economic Development's report on *The Management and Financing of Colleges* (CED, 1973), this Carnegie Commission book was caught up in a divisive and hotly contested debate over tuition policy that distracted attention from the book's more enduring contribution.

In this book the Commission carefully documents the sources of educational revenue, including Federal, state and local governments, private philanthropy, and private tuition payments. A brief investigation of the distribution of benefits of higher education is also included. The Commission drew on the analysis and findings to present several recommendations for gradual shifts in the payment burden to bring the distribution of costs more in line with the distribution of benefits.

Two of these recommendations received the most attention. The Commission urged first, "a redistribution of student subsidies from higher to lower income groups," and, second, "a . . . modest and gradual rise in public as against private tuition." The first recommendation was to be accomplished by a gradual increase in tuition charges to those able to pay and redistribution of public savings to lower income students in the form of increased student aid. The second called for modest increases in public 4-year colleges and universities, rising until tuition was roughly equal to one-third of education costs. The Committee on Economic Development report urged a much larger and more rapid increase in public tuition, and both reports were lumped together and attacked by public college and university representatives strongly opposed to increased public tuition. Their attack was sufficiently strong that the Commission issued a supplementary report, *Tuition* (Carnegie Foundation for the Advancement of Teaching, 1974), clarifying its earlier recommendations and updating the data on which they were based.

It is unfortunate that public discussion of this book became so narrowly focused, since it represents one of the most concise yet comprehensive treatments of higher education finance in print. Much briefer than the report of the National Commission on Financing Postsecondary Education, this should be the first book read by those seeking to understand the distribution of costs and benefits generated by the United States' method of higher education finance. Detailed tables are kept out of the text, rendering it more readable, but are contained in an appendix.

5:1.0/69

The Economics and Financing of Higher Education in the United States, A Compendium of Papers Submitted to the Joint Economic Committee, U.S. Congress, 94 Cong. 1 Ses., 686 pp. (U.S. Government Printing Office, Washington, D.C.).

Most literature on higher education finance has a very short half-life, rapidly becoming obsolete as expenditure patterns, policies, and programs change. This collection of essays is one of the few exceptions, for most of the articles are concerned with issues of continuing importance. Their value lies in the approach to analysis and in the questions asked, rather than in any particular solution proposed. Most still warrant careful reading.

This six-part book approximates an encyclopedia on the economics and financing of higher education, and the introductory overview by Roger E. Bolton remains one of the more comprehensive studies available in this field. The papers in Part 2 examine two of the issues most basic to formulating economic policy in higher education: the efficiency of expenditures, and the distribution or equity impact of costs and benefits.

Part 3, which focuses on economic efficiency, examines the factors that determine the quality of education offered by colleges and universities and discusses the factors that influence short- and long-run variations in institutional costs. The role of enrollment growth and class size are considered, as are the centralization of university functions and the year-round use of university facilities.

Part 4 appraises the future structure of higher education and examines the long-run perspective. A series of projections into the latter part of the 1970's is presented for such pertinent variables as enrollment, staff, expenditures, and degrees granted. Because of the significant portion of total higher education income expended on faculty salaries, one of the papers in this section is devoted to the academic labor market. Part 5 deals with the implications of increasing demands, higher costs, and pressures for change currently experienced by private colleges and universities. One topic, based on a sampling of private universities, examines the trends in expenditures and income over the past decade. Another includes estimates of future expenditures reported by 30 private colleges.

Part 6 deals with the financing of higher education in the 1970's including prospects for financing higher education from sources other than the Federal Government and the major issues and various questions that arise in connection with Federal aid to higher education. The subject matter includes the basic decisions that must be made in determining the optimum form of Federal aid; the benefits and costs of a number of forms of student aid; the early findings of the Carnegie Commission on Higher Education; and strategies for securing Federal aid.

Authors include Roger Bolton, Howard Bowen, William Bowen, Allen Cartter, Andre Daniere, Paul Feldman, Roger Freeman, Lee Hansen, Seymour Harris, Hans Jenny, Clark Kerr, Selma Mushkin, Alice Rivlin, and many other nationally known experts in the economics field. Readers interested in the intellectual development of this subject will find much to ponder in these more than decade-old writings.

See also: 29:1.1/73-2 **The Management and Financing of College,** Research and Policy Committee of the Committee for Economic Development.

2.0 FEDERAL ROLE

See: 17:1.0/80 **Federal Student Assistance: Issues and Options,** Congressional Budget Office.

The Congressional Budget and Impoundment Act of 1974 created, among other things, the Congressional Budget Office (CBO), which is devoted to dispassionate analysis of budgetary issues confronting the Congress. Because the agency is closely linked to policy, its reports concentrate on subjects of current congressional interest. And since congressional decisions for fiscal 1981 concerned the future role of the Federal Government in postsecondary education, this report deals with the critical issue of whether to maintain or alter the current focus of the major Federal student assistance programs.

The report considers the three basic options available to the Congress—maintenance of current programs, expansion of the Federal role in student assistance, and reduction of the Federal role. It discusses: (1) Federal goals in postsecondary education and the effectiveness of current programs in meeting those goals; (2) each type of Federal student assistance program, including the impact of various proposals on each; and (3) the overall budget implications of four specific Federal policy options. Because the CBO is mandated to provide objective and impartial analyses, this report contains no recommendations.

CBO budget issue reports such as this one should be forthcoming each year. The CBO distributes its reports free of charge.

See: 12:1.3/78-3 **Scholars, Dollars, and Bureaucrats,** Chester E. Finn, Jr.

For the reader who wants a good overview of Federal policy towards higher education and how it has evolved in recent decades, this is the ideal book. In a highly readable fashion, the author discusses the roughly $14 billion of Federal expenditures, direct and indirect, that support institutions, students, and research. These outlays are discussed within the context of policy debates that flourished in the late 1970's regarding the Federal role in higher education.

The book's eight chapters are as follows: Chapter 1, "Time for Another Look" (an examination of the evolving Federal role); Chapter 2, "The Once and Future Crisis" (a discussion of the growth years for higher education and the "New Depression" of the 1970's; Chapter 3, "College Prices and the Student Aid Muddle" (an examination of the Federal role in student aid); Chapter 4, "Toward the Reform of Student Assistance (a discussion of inequities in the current system, and a proposal for reform); Chapter 5, "Support for Institutions" (an examination of Federal support for university-based research and development, and other institutional support); Chapter 6, "Exploring the Regulatory Swamp" (the growth of government regulation of higher education and possibilities for reform); Chapter 7, "Policy and Structure" (educational programs and management within the executive branch, with a look at proposals for a Department of Education); Chapter 8, "Looking Ahead" (a summing up, with views of the future relationships between the Federal Government and higher education).

In 1961, the Brookings Institution published a book by Alice Rivlin entitled *The Role of the Federal Government in Financing Higher Education*. This book can be viewed as the sequel to that earlier effort.

5:2.0/75

The Federal Role in Postsecondary Education: Unfinished Business, 1975-1980, Carnegie Council on Policy Studies in Higher Education, 97 pp. (Jossey-Bass, San Francisco).

This report of the successor organization to the Carnegie Commission is concerned primarily with existing aid programs that, in the Council's view, need more adequate funding. The Council sees the Federal Government as having the following responsibilities with regard to higher education: (1) encouragement of equality of opportunity; (2) support of creative research capacity and its development; (3) distribution of opportunity and creative capacity among the 50 states; and (4) in affiliation with the states, assurance of a reasonable degree of overall institutional health.

The Council suggests three ways to make improvements in these areas: establish a National Student Loan Bank to reduce the serious difficulties of some student loan programs; establish a matching program with the states of Tuition Equalization Grants to involve the state in support of private institutions; and establish a program of support for major research libraries.

The National Student Loan Bank would consist of a "nonprofit corporation to be chartered by the Federal Government and financed by the sale of governmentally guaranteed securities" with no financial need test required for student eligibility. The Tuition Equalization Grants would provide matching Federal funds for one-half the cost of a state tuition equalization grant of about $750 for all undergraduate students attending private institutions. The support to research libraries would require an initial appropriation of $10 million. The Council recommends that the funds resulting from the phasing down of veterans educational benefits (G.I. Bill) be used for these purposes.

Also covered in the report are: national purposes and the Federal role, particularly recent changes in Federal funding, equality of opportunity, and attaining a national balance; student aid and related programs, including discussion of Basic Educational Opportunity Grants, Supplementary Educational Opportunity Grants, State Student Incentive Grants, student loan programs, cost-of-education supplements, tuition equalization, part-time students, and the College Work-Study program; Federal support of vocational education; and Federal support of research and graduate education. Statistical tables and brief summaries of some of the above student aid programs, plus the Student Loan Marketing Association and the National Direct Student Loan program, are also included.

5:2.0/71

Financing Higher Education: Alternatives for the Federal Government, M. D. Orwig ed., 390 pp. (American College Testing Program, Iowa City).

The 13 essays in this volume capture excellently the debates current in the late 1960's and early 1970's regarding the changing patterns of higher education finance and, in particular, the rapidly evolving role of the Federal Government. Since the framework of current Federal policy was largely established in those years, these essays are still pertinent today. In fact, most of the concerns that confront the higher education community now were recognized then, and many of the financing options currently being discussed are covered in this book. Consequently, it merits reading not only as a germane treatment of still lively issues, but for the insights it can provide on the subtle shifts in attitude and in argument that occurred during the 1970's.

Topics covered include: the economic and social background against which financing policies must be developed; the diverse views on "who should pay" (students and parents, society, or various combinations); and alternative Federal strategies, including discussion of student loans, tuition tax credits, institutional support, categorical grants, and revenue-sharing with the states, and an eclectic approach drawing on several of the above. With few exceptions, these represent the basic strategies still under discussion today.

3.0 STATE ROLE

5:3.0/81

The Financing of Public Higher Education: Low Tuition, Student Aid, and the Federal Government, Jacob Stampen, 63 pp. (American Association for Higher Education, Washington, D.C.).

This report, No. 9, in the AAHE-ERIC series of 1980 research reports, provides a good survey of the literature on public subsidies for state institutions of higher education and the competing philosophy that argues for higher tuition coupled with need-based student aid. The report examines three aspects of this tuition debate: the policy debate among academics; the results of recent studies and experiments on relationships among tuition, student aid, and enrollment; and the decisions made by Federal and state governments pertaining to the financing of public higher education.

The author concludes that the challenges to low tuition have neither justified nor resulted in substantial modifications to public higher education's low-tuition system. In public higher education, which currently educates approximately 8 out of 10 college students, student aid has evolved mainly as a supplement to low tuition. This has occurred, the author argues, largely because little, if any, compelling evidence has emerged from research or experience indicating that combinations of scholarships, loans, and work programs could be substituted to maintain the high levels of educational service and college participation supported by public policymakers and society at large.

The author further argues that student loan strategies, favored by some economists as an alternative to low tuition, have suffered from the reluctance of students to borrow or of private lenders to invest in students unless subsidized by government. Federal loan subsidies thus amount to roughly 50 cents on the dollar. Further, the author states, research has shown that loans are less than half as effective as low tuition or student grants in attracting students, and particularly students from low-income families.

The report concludes by citing three issues for further study: How effective is need-based student aid in increasing college participation rates among students from low-income families? How can student aid programs, particularly those of the Federal Government, be refined to simplify needs analysis and the distribution of aid and to clarify student, institution, and government accountability? Is it feasible to maintain high levels of access by combining low tuition with stable or declining amounts of student aid?

5:3.0/74-1

Alternative Tuition Systems, Robert F. Carbone. 146 pp. (American College Testing Program, Iowa City).

This work outlines five models for innovative methods of tuition payment by students to public institutions of higher learning. It was prompted in part by uncertainties arising from recent court decisions and legislative actions regarding residency, age of majority, and voting rights. "Its primary purpose is not only the identification of 'alternatives to the current system of differential tuition in public colleges and universities,' but also an analysis of the 'legal, economic, political, and educational implications of these alternative tuition assessment models,' as seen by four consultants, each qualified by virtue of training and/or experiences to bring special insights to bear on the models."

The five tuition models are: (1) the Nonresident Student Surcharge Model, in which tuition is the same for residents and nonresidents alike, but at the time of initial matriculation, the nonresident is charged a substantial one-time fee, payable over time, corresponding to the state subsidy that resident students receive; (2) the Resident Student Fee Remission Model, in which tuition for both residents and nonresidents is set at full cost of instruction, but graduates of in-state high schools receive a tuition voucher that reduces the direct costs while nonresidents pay a much higher fee; (3) the Sliding Scale (Multiple Criteria) Model, which utilizes a number of weighted residency criteria to sort students into nine tuition levels that correspond to varying degrees of resident/nonresident status; (4) the Sliding Scale (Single Criterion) Model, which sorts students into five tuition levels according to the duration of their residency in the state; and (5) the National Tuition Bank Model, which institutes educational subsidies, provided by all states and/or the Federal Government, for students who attend public institutions in nonresident states.

Each of the models is described in a separate chapter that ends with a brief commentary written from an economic, educational, political, and legal perspective. These were prepared, respectively, by Carol Van Alstyne, Joseph F. Kaufman, Frank B. Pesci, and Allan D. Vestal. The volume also describes an exchange bank that would channel the tuition subsidies directly to those institutions that enroll students.

Five appendixes contain: (1) a summary of traditional reasons for diversifying the student body at publicly supported institutions; (2) the legal issues pertaining to the problem of resident and nonresident tuition and how they have been met by recent court decisions; (3) an explanation of the Blackerby "multiple criteria assessment model"; (4) an explanation of the Hanson-Liethen "sliding scale" tuition model; and (5) an investigation of the "residency and university admission problems in the Federal Republic of Germany," which compares the tuition and enrollment systems and their effect on legal, social, and philosophical issues in Germany and the United States.

5:3.0/74-2

Exploring the Case for Low Tuition in Public Higher Education, Kenneth E. Young, ed., American Association of State Colleges and Universities, American Association of Community and Junior Colleges, National Association of State Universities and Land-Grant Colleges, 184 pp. (Available from American College Testing Program, Iowa City).

This report is a collection of six papers resulting from a 1974 invitational seminar on low tuition. The various associations that sponsored these papers represent both public and private non-profit higher education. The purposes of this report, both the papers and the appendixes, are to explore the intellectual arguments for the low-tuition principle and to identify possible future lines of research into the economic, social and political consequences of changes in the current tuition levels.

The first paper, "Financing Higher Education: The Curre[illegible] State of the Debate," written by Howard R. Bowen, deals with reports by the Carnegie Commission on Higher Education, the Committee for Economic Development, the National Board on Graduate Education, the National Commission on the Financing of Postsecondary Education, the National Council of Independent Colleges and Universities, and the Special Task Force to the Secretary of the Department of Health, Education, and Welfare. It examines these organizations' evaluation of the issues of efficiency, tuition levels, long-term student loans, and the competitive position of the private sector. Also mentioned are benefits and costs, and alternative approaches including loans, tax credits, institutional support, direct grants and revenue sharing with states.

Carol Van Alstyne's "Tuition: Analysis of Recent Policy Recommendations" examines the three main arguments of those advocating increased public tuition. She labels their analysis of financial distress as too pessimistic in outlook and too narrow in perspective. She also says that their "conclusions about the present distributional inequity and the inefficiency of public support for higher education are based on an incomplete analysis of the issues and a confusion over goals," and too much emphasis is placed on competition for enrollment as the cause of the financial distress of private institutions.

"Equity and the Middle Class," by Larry L. Leslie and Gary P. Johnson, examines the impact of recommendations by the Carnegie Commission and the Committee for Economic Development for increased tuition and student aid by family income level. The authors argue that proposals "to increase public tuition and expand grant programs for low-income students would result in a regressive distribution of the burden, with the middle-income students and their families faring badly."

In the fourth paper, Representative James G. O'Hara (D.-Mich), then chair of the House Education Subcommittee, argues that what is needed is a well-financed, nationwide system of low-tuition or no-tuition state universities, colleges, and community and junior colleges, as well as independent institutions. In the fifth paper, G. Theodore Mitau, then chancellor of the Minnesota State College System, "raises questions about the 'market model' which would provide funds to students and let them shop for higher education," and discusses some possible unforeseen, ill effects of higher tuitions. And in the sixth paper, Harold L. Enarson, president of Ohio State University, calls on "public institutions and their supporters to work to preserve low tuition and educational opportunity and for a new agenda in higher education, including the degree of response to emerging needs."

The appendixes include: the American Council on Education statement on tuition policy; the Association of American Colleges statement on tuition policy; a joint statement by the American Association of State Colleges and Universities and the National Association of State Universities and Land-Grant Colleges; and 12 recommended guidelines for public support of community and junior colleges.

See also: 3.5.0/69 **Benefits, Costs, and Finance of Public Higher Education,** W. Lee Hansen and Burton A. Weisbrod.

12:1.2/76-2 **The States and Higher Education: A Proud Past and a Vital Future,** and commentary **Supplement,** Carnegie Foundation for the Advancement of Teaching.

4.0 STUDIES OF HIGHER EDUCATION SEGMENTS

4.1 Graduate Education

See: 14:2.0/77-2 **The State of Academic Science, Volume 1, The Universities in the Nation's Research Effort,** and 14:2.0/78 **Volume 2-Background Papers,** Bruce L. R. Smith and Joseph J. Karlesky.

This two-volume set is the most recent and comprehensive treatment of the health of scientific research within universities. The study on which the volumes are based was the Association of American Universities. Conducted by two social scientists with the assistance of a 10-member advisory group and several outside consultants, the study involved analyses of existing data, as well as visits to 36 universities. For anyone concerned with the research capability of the Nation's universities, these volumes are essential.

Volume 1, published in 1977, discusses trends in the financial support and performance of academic research, drawing heavily on data collected by NSF. The changing relationship of universities to other research performers (nonprofit institutes, government in-house laboratories, industry) is examined, as are current developments in selected fields—chemistry, physics, mathematics, life sciences, and engineering. Among the emerging issues noted are: declining support for and deteriorating quality of research instrumentation and other capital investments; manpower problems related to supply-demand imbalances for new Ph.D's; deteriorating government/university relationships; disputes over the way to compute and allocate overhead costs; and changing relationships between the university and state governments. The concluding section contains recommendations for policy changes.

Volume 2, published in 1978, contains five detailed research papers on university research. They are: "Forces Affecting the Research Role of Universities," by Dael Wolfle; "The Changing Relationships: Universities and Other R & D Performers," by Walter S. Baer; "Targeted Research: An American Tradition," by Carl M. York; "Effects of Recent Trends in Graduate Education on Univeristy Research Capability in Physics, Chemistry, and Mathematics," by David W. Breneman; and "Accountability and the Research Universities," by Sanford A. Lakoff. (For a complete annotation of Volume 2, see 14:2.0/78).

5:4.1/74

Federal Policy Alternatives Toward Graduate Education, National Board on Graduate Education, Commission on Human Resources, National Research Council, 127 pp. (National Research Council, Washington, D.C.)

This report contains a comprehensive discussion of the Federal role in financing graduate education. Since there have been few significant changes in Federal policy toward graduate education since the report was issued, the document is still useful.

The first chapter provides an overview, together with the National Board's recommendations, on Federal policy in financing graduate education. The second chapter provides a brief history of Federal support for graduate education, while the third chapter discusses the problems facing graduate education, including overproduction of Ph.D.'s, declining financial support, difficulties in promoting access for women and minorities, the complexities of institutional cost analysis and accountability, and the difficulties of adjusting to a "steady-state" environment.

The next three chapters discuss issues of graduate student support, research support, and institutional support, including both analysis and recommendations. The absence of coordinated Federal policies and of adequate data bases for policy analysis is considered in the seventh chapter, while a supplement by Frederick Balderston comments in greater detail on the difficulties of cost analysis.

An appendix contains several detailed statistical tables on time trends in support for university research and graduate programs. Many of these data are collected annually by the National Science Foundation, and the tables could be easily updated by referring to various NSF publications.

This report is out of print, but can be ordered from the ERIC Clearinghouse for Higher Education at One Dupont Circle, Washington, D.C. Copies were distributed to the offices of most college and university presidents and to graduate deans, and thus should be available on most university campuses.

4.2 Medical Education

See: 27:1.0/76 **Progress and Problems in Medical and Dental Education: Federal Support Versus Federal Control,** Carnegie Council on Policy Studies in Higher Education.

In 1970, the Carnegie Commission, predecessor to the Carnegie Council, issued a report on medical and dental education entitled *Higher Education and the Nation's Health*. That report was consulted in drawing up a major piece of Federal legislation, the Comprehensive Health Manpower Act of 1971, which created, among other things, capitation grants to medical and dental schools, bonuses to schools that expanded enrollments, grants and loans for students, support for construction and start-up grants for new schools, and support for training of physician's and dental assistants.

Much progress was made over the intervening years but problems continued, including heavy reliance on foreign medical graduates, geographic, maldistribution of physicians, and excessive specialization in medical practice. Proposed changes in legislation to cope with these problems prompted this second Carnegie Council volume, based on concern controls over medical education. The preface notes that: "This report urges a policy of sustained and consistent Federal support of medical and dental education, along with the provision of strong incentives toward needed changes, rather than excessive controls. It is a report in the tradition of the Carnegie Commission's 1970 report, but with central orientation toward the more complex legislative issues that have emerged in the last six years."

The book begins with three warnings and five recommendations. The warnings are that the nation is in danger of starting too many new medical schools, that Federal attempts to alter geographic distribution and to counter excessive specialization through controls will be less effective than policies emphasizing incentives, and that the time has come to quit relying on foreign medical graduates to meet the need for physicians. The recommendations call for a variety of changes in Federal financing policies related to these problems.

Other chapters include a summary of the 1971 legislation and discussions of the projected labor market for doctors and dentists, Federal capitation payments and related policies, the National Health Service Corps, and the need for new medical and dental schools and for area health education centers. A chapter on state support for medical and dental education completes the text, while two appendixes provide supporting statistical tables and projections of physical supply.

5:4.2/71

Financing Medical Education: An Analysis of Alternative Policies and Mechanisms, Rashi Feign and Gerald I. Weber, Report Prepared for the Carnegie Commission on Higher Education and the Commonwealth Fund, 279 pp. (McGraw-Hill Book Co., New York).

While the Carnegie Council volume annotated above concentrates on national problems confronting medical and dental education, and focuses particularly on Federal policy, this volume emphasizes the microeconomic aspects of medical education. One of the book's main contributions is to explore and develop ideas about the behavioral responses to alternative financing schemes of students and of those who manage medical schools. It examines the production processes within medical education, investigating statistically the relationships between financial inputs and outputs such as educated personnel, research, and service. Since so many of the problems in this complex area of professional education involve unanticipated consequences of financing policies, this volume is a valuable complement to the more policy-oriented publications of the Carnegie Commission and Council.

The chapters include a detailed look at the medical school, how it functions, and how it is financed, and at medical students, who they are, how they decide to apply, and how they progress from M.D. candidate to intern to resident. The factors that influence decisions on medical specialty and location are investigated. The financial roles of state and federal governments are each accorded a chapter, and the book ends with a discussion of policy alternatives. Five appendixes provide useful information on data sources, joint production and costs in medical schools, rates of return to medical education, statistical equations, and state support of private medical schools.

This book is an outgrowth of a 1967 conference held at the Brookings Institution, and was completed prior to enactment of the Comprehensive Health Manpower Act of 1971. Since that act did so much to change the incentives in medical and dental education, particularly by providing support for expansion, some of the book's findings are outdated. The analytical approach taken and the issues considered are still germane, however, and students of this subject should consider the book essential reading. It can be viewed largely as a contribution to the broader subject of the microeconomics of nonprofit institutions and of the public sector.

4.3 Private Colleges and Universities

For related policy issues, see Topic 8, Subtopic 2.0.

5:4.3/78

Public Policy and Private Higher Education, David W. Breneman and Chester E. Finn, Jr., eds. 468 pp. (The Brookings Institution, Washington, D.C.).

This volume provides a comprehensive and up-to-date discussion of the prospects for private higher education in the 1980's and the variety of state and Federal policies that might be pursued in order to maintain a financially healthy private sector. Both philosophical questions and practical and political problems are discussed. Ample data, including demographic trends, enrollment patterns over a 25-year period, the growth of the private sector of higher education, and trends in tuition and other charges to students are supplied.

The book combines economic and political analysis of a variety of options, and in the final chapter of the book the editors argue for the creation of a national student market place characterized by: (1) purposeful links between state and Federal financing policies; (2) reduced price barriers to interstate mobility of students; (3) continued Federal emphasis on need-based student aid rather than direct institutional aid; and (4) stabilized or narrowed tuition differentials between the public and private sectors. A sharp increase in the Federal State Student Incentive Grant Program is proposed, together with legislative changes that would make interstate mobility a grant condition. In essence, the Federal Government would offer to finance a percentage of increased state student aid programs. If states choose to reduce their direct support of public campuses in response to this increased student aid, the result would be higher public tuition levels and a narrower tuition gap.

The political analysts writing in the book doubt that such a major transformation in the way states finance higher education is likely to come about, and thus a variety of "second best" proposals are advanced and evaluated. "Second best" in this context refers to policies that can be implemented by the states or Federal Government acting alone rather than in concert.

Chapters 1 and 10, written by the editors, are intended for a general audience and contain a summary of the main financial problems confronting private higher education, along with proposed solutions. The intervening eight chapters contain more detailed analyses of the private college dilemma. Susan C. Nelson presents a thorough treatment of financial trends and issues in the private sector, based largely on time series analysis of institional financial data collection by the former U.S. Office of Education. Michael S. McPherson provides an incisive discussion of the literature covering demand for higher education, and carefully assesses the significance of price and nonprice factors. Lawrence E. Gladieux and Thomas R. Wolanin analyze the Federal political scene, with special emphasis on the developments between the Education Amendments of 1972 and 1976. Robert W. Hartman explores Federal policy options, including the proposal for a Federal-state matching grant program to increase need-based portable student aid. Emil M. Sunley, Jr., analyzes Federal and state tax policies that affect higher education, concentrating on the deduction for charitable contributions and on proposals for a tuition tax credit.

Two chapters focus on state policy. Robert O. Berdahl discusses the politics of public-private relationships, drawing on case studies of California, New York, and Ohio. Colin C. Blaydon investigates the financial possibilities open to states that wish to increase support for the independent sector of higher education. And two college administrators, David G. Brown and Thomas E. Wenzlau, provide the college president's view of the importance of various existing and proposed state and Federal programs.

Most chapters in the book are followed by appendixes providing extensive tables and other forms of data. The text is generally annotated with references and extended explanation and comments. The volume is generally objective and gives not only a broad overview but an indepth consideration of basic issues.

Although most of the issues discussed in the book are pertinent to 2-year and 4-year colleges as well as to universities, the book's main emphasis is on undergraduate education financing. All papers were commissioned for this book, and were the subject of a 2-day invitational conference at the Brookings Institution in November 1976.

5:4.2/77

The States and Private Higher Education: Problems and Policies in a New Era, Carnegie Council on Policy Studies in Higher Education, 206 pp. (Jossey-Bass, San Francisco).

The plight of the private sector of higher education is the subject of this Carnegie Council volume, with particular emphasis on state policies that can help maintain the dual system, public and private, through the 1980's. This study is unique in that it was the first one "specifically designed to assess the impact of existing state policies toward private higher education on enrollments, finances, autonomy, academic freedom and other conditions of private institutions."

The book provides a brief but thorough discussion of the economic position of the private sector in terms of enrollment, the tuition gap, financial status, vulnerability, and the future outlook. This discussion is followed by a description of several current state aid programs. An assessment of the impact of general state programs indicates that they have had a much greater effect on students than on institutions. The pattern of operating deficits characteristic of the early 1970's seems to have been reversed in those states with more extensive state aid programs. Attention is given to such matters of public policy as they affect income groups, public institutions, portability, coordination and statewide planning, Federal programs, and Federal-state relationships. The study concludes with a series of 21 recommendations for state and Federal policy.

In addition to analysis of existing data sources, the Council commissioned a special survey of 230 private colleges and universities to determine the effects of existing state aid programs on institutional finance. Results of this survey are contained in a technical supplement published as part of the book. A second technical supplement provides detailed statistical analyses of enrollment trends in the private sector, with data broken down by state and by Carnegie Commission classification. These data will be particularly useful to state planners and to administrators of private colleges. A third supplement presents case studies of the development of state aid to the private sector in California, Georgia, Illinois, New York, and Pennsylvania.

5:4.3/74

Paying for College: Financing Education at Nine Private Institutions, Sloan Study Consortium, 137 pp. (University Press of New England, Hanover, N.H.).

The growing problem of paying for high-priced higher education prompted this comparative study, which draws on information provided by Amherst, Brown, Dartmouth, Harvard, MIT, Mount Holyoke, Princeton, Wellesley, and Wesleyan. The original nine-member organization was subsequently enlarged to 23 members and renamed the Consortium on Financing Higher Education, with headquarters at Dartmouth.

The nine-college study concentrated heavily on loan financing, including recommendations for change in existing Federal and state loan programs and the implementation of a new supplemental loan program for young alumni who, for unexpected reasons, have difficulty paying back educational loans. The book's discussion of loan finance, and particularly the analysis of the National Direct Student Loan and Guaranteed Student Loan Programs, remains pertinent today.

The discussion of loans is preceded by brief chapters that document the growing financial distress of the nine colleges during the late 1960's and early 1970's, including an analysis of growth in operating expenditures, efforts to control costs, and steps to increase income. A chapter titled "A Search for Solutions" concludes that there are limits to cost control and to the ability to raise outside income, meaning that tuition will remain of central importance. The book's emphasis on loans is prompted by this realization and the need to help students finance these ever-rising charges.

The Consortium on Financing Higher Education published a report in April 1975 entitled *Federal Student Assistance: A Review of Title IV of the Higher Education Act,* intended to influence the Education Amendments of 1976.

4.4 Community Colleges

5:4.4/81

Financing Community Colleges: An Economic Perspective, David W. Breneman and Susan C. Nelson, 222 pp. (The Brookings Institution, Washington, D.C.).

This book provides the most comprehensive treatment of its subject currently in print. The first chapter gives a statistical overview of the growth in numbers of community colleges and enrollments, changing trends in financing over time, current financial patterns in the 50 states, and the shares of Federal, state, local, and private support that make up 2-year college revenues. Considerable information about students is also provided, together with discussion of educational programs and graduates. The chapter ends with a discussion of the numerous theoretical and practical issues that must be considered in evaluating finance plans.

The second chapter develops the economist's concept of efficiency in the context of higher education finance in general and as it applies to community colleges in particular. The nature of social and private benefits associated with transfer, vocational, remedial, and community service programs are discussed, and the implications for financing are developed. The chapter also examines the literature on outcomes of community college education and presents statistical analyses based on the National Longitudinal Survey of the High School Class of 1972. The authors investigate the differential effects on educational, psychological, and labor force outcomes of students who enroll in community colleges rather than 4-year colleges and universities.

The third chapter explores the equity questions that arise when evaluating a financial plan. Three aspects of equity are considered: tuition and student aid, interdistrict equity when local property tax support is provided, and the distribution of state funds among 2-year and 4-year colleges. The authors find that, paradoxically, the greatest potential gains in equity may be generated by a policy that increases tuition *and* student aid, charging those who can afford it a higher price, while increasing subsidies to the most needy students.

The fourth chapter investigates Federal support of community colleges and their students, which is provided primarily through student aid programs. The question of whether community college students receive a fair share of student aid is investigated carefully, and the difficulties in reaching an unambiguous answer are discussed. Current Federal policy on student aid is evaluated from the standpoint of the community college and generally found to be satisfactory, particularly if the legislative provisions of the Education Amendments of 1980 are fully funded.

State and local issues occupy the fifth chapter. Drawing on site visits to several states, the authors conclude that a single "best" finance plan does not exist, nor is it likely to be found given the different purposes served by the colleges in the several states. Further, the authors state that much of the debate over financing plans reflects more fundamental disagreement over the educational mission and priorities of the colleges, particularly differences in values held by community college leaders and state officials. Finance plans embody answers to specific policy questions about which students and programs to subsidize and at what level, and each of these issues is discussed and evaluated. The strengths and weaknesses of various approaches currently in use are presented, and recommendations are advanced for approaches that are equitable and efficient.

The concluding chapter discusses the future of community colleges in the 1980's. The authors present both an optimistic and a pessimistic scenario, covering the best and worst cases likely to be experienced by the colleges, identify factors that contribute to one or the other scenario, and examine the financing recommendations of their study in the context of these scenarios. They also spell out strategic choices facing community colleges regarding activities to emphasize, highlighting the fact that these institutions can choose to retain traditional collegiate values or opt instead to become community-based learning centers.

5:4.4/80

Community College Students, Costs, and Finances: A Review of Research Literature, William Hyde and John Augenblick, 118 pp. (Education Commission of the States, Denver, Colo.).

This excellent review of the community college financing literature was prepared as part of a larger study (supported by the National Institute of Education and slated for publication by the Education Commission of the States in 1982) of the effects of tuition and student aid on access to 2-year colleges. Four topics were identified for review, with a separate chapter in the report covering each topic.

The first chapter deals with the characteristics of community college students. The authors point out that one factor that distinguishes 2-year colleges from other postsecondary institutions is their appeal to nontraditional students—adults, minorities, low-income people, and less educated people. They also provide estimates of the numbers of students attending community colleges and their demographic characteristics.

The second chapter focuses on prospective student enrollment behavior and educational needs. The authors present findings drawn from a large number of needs assessment survey reports and provide a critical review of the design of surveys conducted by community colleges. They also discuss some of the differences between modeling community college choice decisions and choice decisions for higher education in general, including discussions of the small number of studies that have focused explicitly on community colleges.

The question of whether community colleges and their students receive a fair share of student financial aid is the third subject of the review, and that about which the least research has been done. A lack of consensus about several critical value judgments that must be made to address this question blocks an unambiguous resolution of the issue.

The fourth subject, finance, is covered extensively in the report. Topics include the effects of different funding patterns on enrollments, quality of education, and institutional autonomy, as well as criteria for evaluating community college finance formulas.

A final chapter contains a brief summary and identifies issues that should be important research topics in coming years for community colleges.

5:4.4/78

Issues in Financing Community Colleges, John Augenblick, 66 pp. (Education Commission of the States, Denver, Colo.).

This study concentrates on the equity of financing systems for community colleges, with particular reference to interdistrict equity among the campuses within a state system. This measure of equity is applicable only to those states where the 2-year colleges receive a local property tax contribution to operating revenues, as well as state support. In this sense, the issues explored here are comparable to those investigated at the elementary/secondary school level under the rubric of school finance reform: To what extent does the difference in local property tax wealth among community college districts result in unequal expenditures per student or in unequal levels of taxpayer effort?

The author explores this question empirically, using financial data from four states: Mississippi, New Jersey, California (pre-Proposition 13), and Illinois. He finds that district wealth varies substantially between community college districts, and that variations in total revenues, while smaller than those for wealth, are related, in some cases strongly, to variations in wealth. Tuition levels are also shown to be related to wealth, although the direction of the relationship is not uniform among the states examined. The ability to generate equal revenues at equal tax rates is shown to vary widely among districts, and the distribution of state general aid is shown to reduce disparities in tax power, although not necessarily to a very low level.

In addition to the analyses of interdistrict equity, the author discusses two other types of equity questions—intersectoral issues in the distribution of state support among 2-year, 4-year, and graduate education, and equity questions related to tuition and student aid. No empirical work is presented on either of these issues, however.

5:4.4/77

Financing Community Colleges, 1976, Walter I. Garms, 120 pp. (Teachers College Press, Columbia University, New York).

This book is primarily a "think piece," specifying criteria that an ideal finance plan should meet and then evaluating several models in relation to these criteria. Garms sees community colleges performing three special functions: (1) providing access to postsecondary education for those who cannot easily attend 4-year or residential colleges; (2) providing courses and programs not provided by other institutions; and (3) serving the educational needs of the local community at the postsecondary level. He specifies nine criteria, including efficiency and equity goals, that finance plans should meet in furthering these three functions, and devotes the balance of the book to a discussion of financing alternatives. Many of the plans he considers are actually in use, while others are only theoretical.

Since local governments in many states finance community colleges and the elementary/secondary school system from the same property tax base, Garms discusses the issues and concerns (e.g., school finance reform, the *Serrano* case in California) in an integrated manner from the standpoint of both sectors that share this common source of revenue. Two of Garms' nine criteria relate to student and taxpayer equity in the fashion of elementary/secondary school finance.

Garms argues that all financing systems can be classified as market models, as planned economy models, or as hybrids of the two. For states with no local contribution, his nine criteria lead him to endorse what he calls a "modified decentralized system," which attempts to maintain responsiveness to the local community although most of the funds come from the states. For those states that do have a substantial local contribution, he endorses a "modified power-equalizing system," a version of the original Coons, Clune, and Sugarman district power-equalizing model but adapted to the unique features of community colleges. In either instance, Garms argues for increased tuition payments from those students able to afford them.

5:4.4/76

Financial Support Patterns for Community Colleges, 1976, James L. Wattenbarger and Paul M. Starnes, 118 pp. (Institute of Higher Education, University of Florida, Gainesville).

This volume provides a description of existing formulas that each state uses to finance community colleges. The information came from surveys the authors sent to state directors of community/junior colleges.

The book begins with a discussion of the community college philosophy and the various purposes the institutions serve or want to serve. The authors then argue that the states have failed to finance these activities adequately, preventing many of the institutions from meeting their goals. States often refuse to pay for part-time, nondegree-credit instruction, for short courses offered through continuing education units, for older students or students enrolled at night, for counseling services, and the like. The chapter concludes with a not very convincing argument for the states' assuming the full cost of each of these activities.

The second chapter offers a taxonomy of financial support patterns and identifies four categories into which state plans fall: (1) negotiated budget funding, in which each campus budget is negotiated directly with the state legislature or a state board; (2) unit rate formulas, a general term applied to most formula-driven budgets, whether based on enrollments, contact hours, or other activity unit; (3) minimum foundation funding, used in states where there is a local contribution, with the state effort usually inversely related to the taxing capacity of the local district; and (4) cost-based program funding, in which the budgets are based on cost studies broken down by discipline, instructional category, program function, or object of expenditure.

The third chapter provides a detailed description of each state's financial procedure, while the fourth presents the authors' proposal for an "ideal" plan under which the state would fully underwrite the expenses of the multiple activities of the typical community college, using various formulas for each activity. The book ends with three appendixes that present state and local support by state for 1974-75 and 1975-76, a definition of the way each state measures various activities, and a description of financing charges enacted recently in selected states.

5.0 FINANCIAL CONDITION OF INSTITUTIONS

5:5.0/S-1

Preserving America's Investment in Human Capital: A Study of Public Higher Education, 1980, W. John Minter and Howard R. Bowen, 91 pp. (American Association of State Colleges and Universities, Washington, D.C.).

This is the first in a projected series of biennial reports on financial and educational trends in the public sector of American higher education. The purposes of the series are to monitor the progress of public colleges and universities regularly and to provide reliable and timely information for the use of government officials, educators, donors, faculty, students, and other persons or groups interested in public higher education. The series parallels a series of reports produced by the same authors on the financial condition of independent colleges and universities (see 5:5.0/5-2). The work is being sponsored by a consortium of three national bodies: American Association of Community and Junior Colleges, American

Association of State Colleges and Universities, and National Association of State Universities and Land-Grant Colleges.

The initial report covers the period 1976-77 through 1978-79, with some data available for earlier years and for 1979-80. The data presented here are based on a stratified sample of 135 accredited institutions, of which 95 participated. These institutions represent all parts of the public sector except autonomous professional schools. The universe from which the sample was drawn is about 1,300 institutions.

The report provides data on enrollments and admissions, student attrition, faculty size and compensation, tenure and faculty turnover, faculty workload, and administrative and general service employees. It also discusses educational programs, with reference to student achievements, faculty qualifications, and instructional methods. On the financial side, information is provided on operating revenues and expenditures, undergraduate student financial aid, and liabilities and net revenues, and an analysis is made of the relative financial condition of institutions individually. The report ends with the authors' summary and concluding observations.

5:5.0/5-2

Private Higher Education, (First, Second, Third) Annual Report on the Financial and Educational Trends in the Private Sector of American Higher Education, W. John Minter and Howard R. Bowen, 110, 116, and 77 pp. (Association of American Colleges, Washington, D.C.).

Independent Higher Education, Fourth Annual Report on the Financial and Educational Trends in the Independent Sector of American Higher Education, W. John Minter and Howard R. Bowen, 148 pp. (National Association of Independent Colleges and Universities, Washington, D.C.).

These volumes comprise a continuing series of reports widely recognized as among the most useful to date in reporting and analyzing the status of the private sector of higher education. The first three reports were based on a sample of 100 private 4-year colleges and universities, while the fourth report was expanded to include major research universities and 2-year colleges. Subsequent reports will also be based on this enlarged sample of 135 institutions, which is representative of the over 1,150 private colleges and universities.

The reports draw on the Higher Education General Information Survey (HEGIS), salary information submitted to the American Association of University Professors (AAUP), audited financial statements of each college, annual college budgets, the president's annual reports, the college catalog, and a voluntary financial support survey. In addition, the colleges and universities responded to a six-part questionnaire directed to major institutional administrators.

These data have permitted the authors to draw conclusions on admission and enrollment, retrenchment, environment, revenues and expenditures, assets, liabilities and net worth, student housing and dining, attitudes about present conditions and future outlook, comparison with the public sector, and analysis of individual institutions. The authors have also attempted to relate changes in financial status to changes in educational programs through analysis of additions and deletions to the course offerings, changes in faculty size and composition, etc.

The authors have made several interpretive generalizations. For example, in the 1975 report, they note that approximately 25 percent of the institutions studied appeared to be in financial distress and that those were found chiefly among the Comprehensive Universities and Colleges and the Liberal Arts Colleges II (Carnegie Classification). They also express concern over whether the pressures of the market may not be forcing such institutions to compromise their integrity. At the same time, they found no significant deterioration in program quality. Finally, they observe that relative financial health should be credited largely to state and Federal Governments, which helped through student aid programs and in other ways.

In addition to providing statistical information, the reports are particularly valuable for the interpretations that the two experienced scholars draw from the data. Since the four reports cover the period 1969-70 through 1976-77 (and for some data through 1977-78), they offer a valuable longitudinal data base. The authors will continue to ensure the reliability and timeliness of the statistics through a yearly compilation of data; however, after 1978 the report will be published biennially.

5:5.0/80

The Venture Capital of Higher Education, Martin Kramer, 80 pp. (Jossey-Bass, San Francisco).

The topic of this essay is finance, but the concern is not so much with the financial health of institutions as with their creative health; it is with the margin of financing that makes possible qualitative gains as opposed to sheer survival. Such a margin has usually been provided by private funds and, less often, by public funds made available for discretionary use. Because of the importance of such funds, the author attempts to outline how and why private and "private equivalent" resources have played such a large role and how that role can continue to be performed in a financially troubled future.

Given the desirability of discretionary funds and the recent slowing of private support for higher education, the author focuses on the ways in which public support can be made more like private support and looks particularly at changes in accountability for public funds that have occurred in recent years. To determine the additional amount of discretionary funds that institutions need to maintain their "creative autonomy," the author estimates the share of total funding of institutions that ought to be discretionary and subject mainly to the accountability of the future. Finally, he discusses ways in which the amount of discretionary funds might be raised to that level.

5:5.0/76

Higher Education and the Economy, Hans H. Jenny, 56 pp. (Educational Resources Information Center, Washington, D.C.).

This brief essay, the second in a series prepared under the auspices of the ERIC Higher Education Clearinghouse, is actually a careful survey of much of the literature on the economics of higher education, and thus should be the first document read by a novice in this area. The reader will find in it a systematic discussion of many of the other works included in this bibliography, as well as a critical evaluation of many of those works.

The essay briefly examines the impact of overall changes in the economy on the fortunes of higher education, and includes a discussion of the specific effects, both positive and negative, of the 1974-75 recession. It also traces the effects of recession on higher education revenues through the impact on enrollments, on state government appropriations, and on philanthropic support.

The volume also summarizes the growing literature on demand for higher education, as well as recent reports on financial condition, including the Bowen-Minter reports (5:5.0/5-2) and the Lanier-Anderson report (5:5.0/75). A criticism of the *Higher Education Price Index* by Kent Halstead is also included.

The author argues that the single most serious defect in our national data bases for higher education ". . . lies in the absence of nationally credible indicators of institutional health, especially if the latter is defined in the broad manner suggested by the National Commission on the Financing of Postsecondary Education." He goes on to argue that "The development, nationally and with the assistance of the states, of a set of comprehensive indicators of institutional health should have highest legislative priority." In Jenny's view, higher education will find it difficult to argue its case persuasively in the 1980's if such indicators, simple and compelling to legislators and other policymakers, are not developed.

5:5.0/75

A Study of the Financial Condition of Colleges and Universities: 1972-1975, Lyle H. Lanier and Charles J. Anderson, 102 pp. (American Council on Education, Washington, D.C.).

This study was prompted by a concern that the National Commission on the Financing of Postsecondary Education report had not taken sufficient note of the changes in real resources per student that a combination of inflation and reduced state appropriations and declining endowment yields had produced during the first half of the 1970's. To provide evidence of this change, surveys were sent to a representative sample of institutions to collect current data similar to those published from the Higher Education General Information Survey (HEGIS), but often with a delay of 2 or more years. Institutions were grouped into Carnegie Commission categories, and changes in operating revenues per student were traced over the 1972-75 period in both current and constant dollars. The authors found that the sharp inflationary increases that marked these years had contributed to a drop in real resources per student, reversing an over 30-year pattern in which resources per student increased by an average of roughly 2.5 percentage points per year.

The report includes information for this 3-year period on enrollment trends; trends in operating revenues, including both educational and general and tuition and fee revenues; current fund and student aid deficits; and the changing distribution of expenditures by function. Of particular interest are the chapter on inflation and the several price indexes that have been developed for higher education. Comparisons of five higher education price indexes with three national economic price indexes is especially useful, as is the authors' discussion of the strengths and weaknesses of the various measures. For their own study, the authors used the Halstead price index, slightly modified, notwithstanding the criticisms that have been leveled against it by some university administrators.

Although the use of expenditure per student data can be misleading across institutional types, particularly when the problems of joint production are present (e.g., faculty engaged in teaching, research, and public service), this study is a valuable contribution to the understanding of changes in higher education resources. It is unfortunate that it was a one-time effort.

5:5.0/73

The New Depression in Higher Education: A Study of Financial Conditions at 41 Colleges and Universities, Earl F. Cheit, 169 pp. (McGraw-Hill Book Co., New York).

The New Depression in Higher Education—Two Years Later, Carnegie Foundation for the Advancement of Teaching, 84 pp. (CFAT, Berkeley, Calif.).

Although the specific information contained in Cheit's seminal report is dated, this volume is included in this section—together with the followup study done 2 years later—because it contributed greatly to the discussion of higher education finance during the 1970's. It brought out into the open private concerns about financial stability that had haunted many college and university presidents in the late 1960's. Until the publication of this volume made it respectable, it was difficult for presidents to talk publicly about growing budget deficits.

The book presents 41 case studies based on interview reports and appropriate financial records. The sample selected for the study represents several types of institutions, both public and private: universities, liberal arts colleges, comprehensive colleges, and 2-year institutions. Cheit found that 29 of the institutions (71 percent) either were approaching or already experiencing financial difficulty. (Financial trouble was considered imminent if, at the time of the study, an institution had been able to meet current responsibilities but could neither ensure that it could much longer sustain current program and quality standards nor plan to support evolving program growth. Colleges and universities forced to reduce services or eliminate important education programs were considered in financial difficulty.) On a nationally-weighted basis, Cheit found that 42 percent of U.S. institutions (accounting for 54 percent of the students) were heading for financial trouble. Again on a weighted basis, slightly less than one-fifth, or 19 percent of the institutions (accounting for 24 percent of the students), were already in financial difficulty.

In addition to revealing the magnitude of the emerging depression in higher education, the author calls attention to the nature and impact of the financial problems as they affect various kinds of institutions and to the way these institutions are responding. The author's case-study examination of expenditure patterns, income factors, and administrative practices enables the reader to obtain a down-to-earth perspective on a variety of financial problems and how they may be most effectively solved. The study also presents views of school administrators concerning public policy toward financing higher education.

The followup study, *The New Depression in Higher Education—Two Years Later*, documents a "fragile stability" in revenue and expenditure trends that had occurred since 1971. In particular, the increase in real expenditures per pupil in these institutions had dropped from 4 percent per year in 1971 to 0.5 percent by 1973. These figures can be compared to the decline in real resources per student noted in the Lanier-Anderson study for the 1972-75 period.

6.0 DATA SOURCES

Note: The following entries make up a basic list of data sources with which any student of higher education finance should be familiar. Whereas most of the preceding entries involved analysis of data leading up to recommendations for public policy, the materials in this section are among the more important sources of information required for such analyses.

5:6.0/S

Financing Higher Education in the Fifty States: Interstate Comparisons for FY 1979, Marilyn McCoy and Kent Halstead, approx. 500 pp. (National Institute of Education, Washington, D.C.).

This study presents a systematic model of data relating to state and local government financial support of higher education. The framework and graphical layout assist in understanding the component elements affecting institutional financing and their interaction, and serve as an aid in appraising performance levels through use of interstate comparisons. Separate reports are provided for each of the 50 states, and each state report consists of seven topics—commentary, state financing of higher education, public institutions status report, independent institutions status report, trends, faculty salaries, and institutional descriptors.

The authors' commentary section presents fundamentals and a profile of state financing from which the reader can construct more detailed investigations. Questions of interest to legislators, state planners, and budgeting officers that the commentary and data address relate to maintenance of appropriations, proportional enrollment and inflation, consistency of enrollments per capita with state goals, taxation effort and allocation to higher education relative to enrollment load, utilization of the tax base, and level of appropriations per student compared with national averages.

The state financing section includes a diagram of the state and local government budget for seven public services to suggest the relative standing of higher education in the budget through comparison with other states. A brief summary of enrollments includes the attendance patterns of resident and nonresident students. A series of related measures show the fiscal actions of state and local governments in taxation and allocation of collected revenues to higher education. Distribution of the resulting government appropriations to higher education by sector and function are presented. Collectively, the data can be used to trace a path from potential tax capacity to ultimate recipient and the allocation decisions associated with each step. A table of state and local tax capacity reports the ability or potential of state and local governments to obtain revenues for public purposes through various kinds of taxes.

"Status reports" for both the public and independent sectors are organized in four parts—the principal entries of "Institutional Revenues" and "Institutional Expenditures," and two supporting entries of "State and Local Finances Per Capita" and "Enrollments." The status reports show how state and local government appropriations allocated by type of institution interact with related enrollments per capita to result in appropriations per student that, together with other institutional revenues, support institutional expenditures. Important here in establishing meaningful comparisons are the number of institutional type classifications and provision for revenue and expenditure detail.

The trend diagrams report enrollments and revenues over time in absolute amounts and in percent change and relative distribution. A separate chart illustrates the trend in state and local government appropriations relative to enrollment growth and inflation. The faculty salary data report average state salary amounts for 9- to 10-month full-time faculty by academic rank and institutional category. The institutional descriptors section provides additional data such as the number of institutions within each of the 10 institutional categories, their median size, FTE enrollment, and percent distribution of enrollment by student level.

The current plan is to publish the basic data in a biennial edition, with a comprehensive study and analysis presented periodically. The volume appears to be a major step in converting otherwise sterile raw data into a meaningful organization and interrelationship that should be of significant value to planners in appraising their state and local government support of higher education.

5:6.0/A-1

Special Analyses, Budget of the United States Government, Fiscal Year 19__, Office of Management and Budget, approx. 350 pp. (U.S. Government Printing Office, Washington, D.C.).

Published each January concurrently with the President's budget, the Special Analyses are an essential source of information on Federal outlays for higher education and related areas, such as medical education and research and development. Special Analysis D lists investment-type programs, including outlays for research and development and for education and training. Special Analysis F focuses on Federal credit programs, including those for education, and describes the Education Amendments of 1980. Special Analysis G deals with tax expenditures, including education, health, and training outlays. Special Analysis H includes discussion of grant funding to help educate and train low-income unemployed youth. And Special Analysis K is devoted to research and development. Special Analyses of previous years have focused on education, health outlays, and tax expenditure provisions that benefit educational institutions, students, and faculty.

5:6.0/A-2

Financial Statistics of Institutions of Higher Education, Fiscal Year 19__, State Data, Paul F. Mertins and Norman J. Brandt, approx. 250 pp. (National Center for Education Statistics, Washington, D.C.).

Published annually, this report from the Higher Educational General Information Survey (HEGIS), collected by the National Center for Education Statistics (NCES), is the basic source of information on institutional finance for U.S. higher education. Surveys are mailed yearly to all institutions, and better than 90 percent usually respond. Estimates are made for missing data, rounding out the universe of higher education.

The basic tables include current funds revenues and current funds expenditures, physical plant assets, indebtedness on physical plant, endowments, and a statement of changes in fund balances. Published data are broken down according to state, type of control, university, and whether the school is 2- or 4-year. Data for individual institutions are available on computer tapes from NCES at a reasonable charge.

5:6.0/A-3

Voluntary Support of Education, 19__, Council for Financial Aid to Education, approx. 70 pp. (CFAE, New York).

Published annually, this survey of philanthropic giving to institutions of higher education is the basic source of information on voluntary support. Although less than half of all philanthropic institutions complete the survey, estimates are made of universe totals. The figures reported by respondents provide information on total giving, sources of support, forms of giving, support through the annual fund, total nonalumni parent support, corporation matching gifts, and current market value of endowment.

The survey has been conducted since 1954-55, and thus provides an excellent time series of information.

5:6.0/A-4

Higher Education Prices and Indexes (1975), D. Kent Halstead, 114 pp. (U.S. Department of Health, Education, and Welfare, Washington, D.C.).

This volume is kept up-to-date with annual supplements currently published each fall by Research Associates of Washington, D.C.

In examining expenditures on higher education over time, analysts must be concerned with changes in the purchasing power of the dollar caused by inflation. Prior to publication of this book, one was forced to use economy-wide indexes, such as the consumer price index or the implicit GNP deflator, which were better than nothing but hardly accurate for the specialized goods and services purchased by institutions of higher education. Halstead's annual publications provide four specialized indexes for higher education, calculated annually from 1961 to the present: a current operations index, a research and development index, a physical plant additions index, and a student charge and tuition index. The first has received the greatest attention and the most use.

In addition to the indexes themselves, the initial publication contains chapters on the uses and limitations of price indexes generally and on index number theory. Annual supplements simply update the time series.

The composition of Halstead's current operations index has been criticized by Princeton University president William G. Bowen for concentrating too heavily on education and general expenses rather than on the full range of university costs, including auxiliary enterprises. (See William G. Bowen, "The Effects of Inflation/Recession on Higher Education," *Educational Record*, Summer 1975, Vol. 56, No. 3). Also see discussion of Halstead's index in the documents by Jenny (5:5.0/76) and by Lanier and Anderson (5:5.0/75).

See: 14:2.0/A **Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 19__.**

This is an essential reference for those seeking information on the distribution of Federal dollars to colleges and universities. The NSF collects these data annually from the 14 Federal agencies that account for over 95 percent of the Federal obligations to institutions of higher education. The guide ranks the top 100 recipient institutions by dollars received, and organizes by state obligations to each college and university. Information on obligations by each agency and by type of support is also presented, with particular emphasis on support for academic science.

These annual reports can be ordered from the U.S. Government Printing Office or from the Division of Science Resources Studies at the National Science Foundation.

See: 17:5.0/A-1 **National Association of State Scholarship and Grant Programs: 12th Annual Survey, 19__-__ Academic Year,** Kenneth R. Reeher.

This ad hoc survey of state scholarship and grant programs is the only source of information on this growing area of educational finance. During the 1980-81 academic year, states awarded $912 million in student aid, up from $650 million in 1976-77. Tables provide information on the number of awards and total dollar outlays for every state and for every program. With increased emphasis on direct student aid, any study of resources available to students will necessarily have to cover these state programs.

Copies of earlier surveys are out of print. Current surveys are available for a fee from NASSGP, Survey, c/o PHEAA, Room 211, Towne House, Harrisburg, Pa. 17102.

5:6.0/80

Foundations and Higher Education: Grant Making from Golden Years Through Steady State, Earl F. Cheit and Theodore E. Lobman, 141 pp. (Jossey-Bass, San Francisco).

This volume investigates the changing role of foundation support for higher education. In undertaking this investigation, the authors first selected an appropriate sample of foundations and applied a classification system to their grant-making activities. Their aim was to analyze the experience of three kinds of grant-making foundations—community foundations (which are created by donors), corporate foundations (which are created by business firms), and general purpose foundations (which are usually created by individuals or families).

Compared with other summaries of foundation giving, this summary is unique in two ways. First, it includes all grants affecting higher education. Second, the data quantify foundation attention to certain issues as well as to conventional purposes such as endowment, buildings, student aid, and research.

The authors found that foundation grants support nearly every aspect of higher education operations and all types of institutions. However, specific trends and patterns in grant-making were evident. In terms of the four general purposes of grants—development, general strengthening, sustenance, and research—development grants were generally favored by the foundations in the sample. The authors also identified a shift from support of research toward support of development and from support of general strengthening toward support of sustenance. In addition, it was found that two-thirds of the grants for higher education went to private institutions, and, in general, each kind of foundation favored a particular type of grant.

Among the other issues discussed are the facts that grant-making foundations publish little information about themselves, that foundation grants have not kept pace with inflation, and that there is a conflict between the foundations' emphasis on change and institutions' emphasis on stability.

5:6.0/78

Tax Wealth in Fifty States, D. Kent Halstead, 250 pp. (National Institute of Education, Washington, D.C.).

This study is an update of two earlier efforts to assess state and local fiscal capacity published by the Advisory Commission on Intergovernmental Relations. One was a 1962 study by Selma J. Mushkin and Alice M. Rivlin, *Measures of State and Local Fiscal Capacity,* and the other a 1971 study by Allen D. Manvel and Donald J. Curran, *Measuring the Fiscal Capacity and Effort of State and Local Areas*. The present work draws heavily on a simplified computer-based technique for generating estimates of fiscal capacity developed by Robert Reischauer while at the

Brookings Institution. It should be possible to keep such estimates reasonably current through use of this technique, which draws on data available yearly.

The volume presents data on and a comparison of the tax capacity and effort of state and local governments. Assessment of state and local public service needs, including a separate analysis of public higher education, are presented in the appendixes.

The data for this volume are for tax year 1975. A tax wealth *Supplement*, published by NIE, presents tabular data only for tax year 1977. Subsequent issues providing every-other-year coverage (1979, 1981, etc.) will be published by the Advisory Commission on Intergovernmental Relations.

5:6.0/73

Sources of Funds to Colleges and Universities, June A. O'Neill and Daniel Sullivan, 45 pp. (Carnegie Commission on Higher Education, Berkeley, Calif.).

This slim volume provides valuable data on the revenue sources of higher education institutions from 1930 to 1968. Drawing primarily on U.S. Office of Education surveys conducted before the establishment of the Higher Education General Information Survey (HEGIS), the data provide a bridge from earlier periods to present. Any research that attempts to track the changing importance of a given source of revenue, such as tuition, will find this volume indispensable.

For an example of the way these earlier data can be merged with more current HEGIS data, see the chapter by Susan C. Nelson, "Financial Trends and Issues," in the Breneman-Finn volume annotated in entry 5:4.3/78 of this chapter.

5:6.0/71

Resource Use in Higher Education: Trends in Output and Inputs, 1930 to 1967, June A. O'Neill, 106 pp. (Carnegie Commission on Higher Education, Berkeley, Calif.)

This pioneering effort involved an investigation of trends in output and input in the higher education "industry" over the years 1930-1967. Output was measured according to instruction, using the student credit hour as a base. Other products, such as research and public service, were not included. Inputs were measured both by operating expenditures and with estimates of the stream of services provided by the capital stock. A price index for instructional services was devised to convert the measures into constant dollars. The study's principal finding was that the constant dollar cost per credit hour did not change appreciably over the nearly 40 years studied, indicating that the instructional function of higher education has not increased in productivity.

One can make many quibbles with the methodology of this study, but it remains an essential resource for students of the higher education industry. It is also invaluable as a guide to sources and limitations of data in those earlier years, and provides a number of methodological appendixes on ways to cope with these data in order to render them comparable and useful. It is an essential reference work.

6

Governance and Coordination

John K. Folger

This chapter focuses on governance and coordination as legal and organizational frameworks within which specific policy is set. Governance is a formal and legal method of control and decision-making through which policies and regulations are administrated. Governance over institutions of higher education can include direction and control of the following: a single institution or campus, multiple institutions and multicampus systems, and statewide systems.

Coordination is the effective interrelationship between institutional entities in pursuit of common goals and policies. Coordination can involve legal control of specified procedures (e.g., program approval, budget review, planning) as a means of assuring effective joint action by institutions. This form of coordination regulates institutions and their governing authorities. Coordination that does not include legal authority is termed voluntary or advisory. Voluntary coordination is generally concerned with identifying problems, conducting studies, and making recommendations. Coordination may be regulatory with respect to public institutions and voluntary with respect to private institutions.

The boundaries between governance and coordination often overlap. For example, if an institution has a governing board, agencies that regulate the institution at the state level are called coordinating boards, even if they control the key processes usually associated with governance, such as budget and program control.

This chapter is organized into five sections.

General. This section lists works that focus primarily on general and institutional governance. It includes conceptual studies of the governing process and selected works from related organization and administrative theory.

State Role. This section focuses on the more limited literature dealing with the organization and functions of state-level coordinating and governing boards. It covers two themes: the proper relationship between state agencies and institutions in terms of centralization versus decentralization and accountability versus independence, and the functions of state agencies in terms of interrelationships and performance levels.

Trusteeship. This section deals selectively with the extensive literature on trustees and on the concepts of lay governance in education. Since trusteeship, for both single- and multicampus systems, is a key part of governance in American higher education, emphasis is on the effective performance of trustees in fulfilling their responsibilities.

Politics of Higher Education. This section contains only selected entries from the broad topic of politics of higher education because the topic is covered in entries under other sections.

Descriptions of Coordinating and Governing Arrangements. This section lists works that are primarily descriptive of state organizations for coordination or governance. These descriptions are of value in tracing and analyzing changes in state organizational arrangements.

For works that deal primarily with internal governance between faculty, departments, and administration, see Topic 26: Faculty, Subtopic 4.0, Governance. The impact of the Federal Government, which has no direct role in coordination or governance of higher education, is discussed under Topic 12: Policy and General Reference.

TOPIC ORGANIZATION

6: Coordination and Governance
  1.0 General
  2.0 State Role

3.0 Trusteeship
4.0 Politics of Higher Education
5.0 Descriptions of Coordinating and Governing Arrangements

1.0 GENERAL

6:1.0/81
Higher Education in American Society, Philip G. Altbach and Robert O. Berdahl, eds., 326 pp. (Prometheus Books, Buffalo, N.Y.).

The eighteen authors of this volume were commissioned to examine the forces that have shaped American higher education in the last decade. Six of the chapters cover various aspects of governance and coordination and are annotated here. Of special interest are the changing relationships shown between government, law, and institutions of higher education. The chapters and their authors are: "Autonomy and Accountability" by T. R. McConnell, "State Government" by John Millett, "The Federal Government" by Aims McGuiness, "The Courts" by Walter Hobbs, "Presidents and Governing Boards" by John Nason, and "The Insulated Americans, Five Lessons from Abroad" by Burton Clark.

The editors give the reader a sense of perspective on the issues in higher education. For instance, the continuing tension between institutions and government, and between faculty, administration, and trustees is discussed from the perspectives of the participants. Most of the authors place these relationships within their historical frameworks. Shortages of funds and impending declines of enrollment are described, along with their impact on relations between participants.

There is a good deal of consensus on principles that should be followed in the organization and governance of higher education: Institutions must be responsive to public needs and priorities, but they cannot be closely regulated from either within or without; they must be accountable and responsive to clients but must maintain standards and avoid excessive consumerism. Since these principles mean different things to different groups, the tensions are expected to continue and new generations of students, faculty, trustees, and public officials will also grapple with them. According to Steven Bailey, in the concluding chapter, ". . . at heart we are dealing with a dilemma we cannot rationally wish to resolve."

For readers disturbed by these tensions, Burton Clark, in "The Insulated Americans: Five Lessons from Abroad," makes it clear that we've done better than most nations in maintaining a "creative" tension among these various forces. The book contains a topically arranged bibliography for those readers wishing to read further on the subject.

See: 1:0/78-2 **Academic Power: Patterns of Authority in Seven National Systems of Higher Education,** John H. Van de Graaff and Associates.

In this study, the authors compare the organization and decision-making processes of educational systems in Italy, France, and Sweden—as examples of centralized national systems, "state power"—with those of Great Britain, Germany, Japan, and the United States—as examples of decentralized systems, "campus power." This is one of the few studies to base its analysis on a conceptual framework that can lead to generalizations about how governance processes in systems that operate in very different cultural and historical contexts deal with changes.

The authors analyze the interactions of representatives of state power (i.e., multicampus sytems, individual states, and national governments) and of representatives of campus power (i.e., faculty members, departmental units, and institutions). They draw conclusions about the adjustments of these different systems to the massive growth and change of the last 20 years and discuss the systems' capabilities for responding to social change and for initiating necessary internal responses.

Burton Clark and Dietrich Goldschmidt show the unique way in which each system has developed by tracing these developments back to their historical influences. Additionally, Clark describes six types of academic power—professorial, guild, professional, trustee, institutional bureaucratic, and governmental bureaucratic—and discusses their various combinations within the systems examined. He then describes some of the consequences resulting from such combinations.

The volume contains a statistical appendix that provides comparisons of each system's educational inputs, outputs, revenues, and expenditures.

See: 26:4.1/78 **Sharing Authority Effectively,** Kenneth P. Mortimer and T.R. McConnell.

The authors present a comprehensive treatment of governance arrangements in colleges and universities in the United States. The first six chapters deal primarily with governance issues within institutions, and the authors build their discussion around two main themes: the distribution of authority among the various groups (i.e., shared governance responsibilities), and the basis for legitimate authority. The authors also discuss the conflicts between functional authority (collegial) and bureaucratic authority.

The chapters on internal governance cover such topics as the role of the academic senate, the impact of collective bargaining, faculty-administrative relations, administrative leadership, and relations with trustees. The authors discuss concepts of authority, legitimacy, accountability, and leadership, and describe processes of decisionmaking as well as structures of governance.

Three chapters are devoted to external governance structures and processes, including statewide coordination, accountability, and decentralization and centralization of authority. The chapter on statewide coordination describes the various state structures, including their strengths and weaknesses, and identifies some of the tension points that have developed between campuses and statewide agencies. The chapter on centralization versus decentralization points out the problems of each within institutions and systems. The authors believe that the systems adopted by institutions of public higher education are becoming increasingly important. They are concerned about what they consider the erosion of responsibility of campus heads and State Boards of Education by collective bargaining.

The final chapter contains recommendations for changes that would increase the effectiveness of shared governance. The authors believe that sharing responsibilities is essential but that first the participants must reach agreement on the specific responsibilities that each must assume. This agreement must be applicable within institutions themselves as well as between institutions and their external constituencies.

The book offers a particularly good treatment of the impact of collective bargaining on coordination and governance arrangements in higher education, and it contains an extensive bibliography.

6:1.0/77

New Structures of Campus Power, John D. Millett, 294 pp. (Jossey-Bass, San Francisco).

John D. Millett and 30 other authors examine the changing structure of management, decisionmaking (governance), and leadership that emerged on campus in the decade covering 1966 to 1976. Increased faculty and student participation in governance characterized this period, and Millett, through 30 case studies of various types of 4-year institutions, attempts to assess the effects of the changes on the effectiveness, clarity, and acceptability of the new arrangements. The author limits his assessments to the internal governance of individual campuses and does not consider multicampuses or statewide governance arrangements, although their impact is obvious in some of the cases.

The book has eight chapters. The first reviews studies of governance and different models of the governance process. It defines the dimensions of leadership, management, and decisionmaking that will be examined in later sections. The second describes study methods. The next three chapters include case studies, respectively, of major research universities, other universities, and general baccalaureate colleges. The last three chapters examine the results of the governance arrangements of these institutions and develop generalizations. They point out that the increased participation of faculty and students in decisionmaking was largely a result of increased acceptability of their decisionmaking (and the resultant decisions), but that this was offset by a reduced effectiveness of university governance arrangements. In the seventh chapter Millett discusses a workable model of campus governance, and the final chapter is a realistic examination of the requirements for an effective governance structure.

This book is a valuable blend of concept, theory, and Millet's extensive practical involvement with leadership and decisionmaking in higher education.

6:1.0/75

Managing Multicampus Systems, Eugene Lee and Frank M. Bowen, 174 pp. (Jossey-Bass, San Francisco).

This book is a reexamination of the nine multicampus systems studied by the authors for their 1971 book *The Multicampus University*. Like the earlier work, this was produced under the auspices of the Carnegie Council on Policy Studies in Higher Education (successor to the earlier Carnegie Commission). It examines the ways in which these systems responded to changing pressures in higher education, enrollment stabilization and decline, and more limited resources.

The first chapter describes the nine systems studied; the next six chapters describe key functions of planning, program review, budgeting, program development strategies, faculty retrenchment and renewal, and student admissions and transfers; and the final chapter concludes with a prognosis about multicampus systems in the 1980's.

The information in this study is based on questionnaires and about 100 interviews with system officials. There are a number of interesting comparisons with the earlier study of these same institutions. For example, the institutions now do more planning; academic and fiscal planning are much more closely related; and there is a much greater development of systems that go beyond the aggregations of individual campuses. The key issue, however, is still centralization versus decentralization: what functions must be centrally governed and managed, and what functions can be coordinated at the central level but managed at the campus level?

See: 30:1.0/74-4 **Managing Today's Universities,** Frederick Balderston.

This book is in part the outgrowth of a major program of research on university administration conducted by Frederick Balderston and others at Berkeley from 1968 to 1978. The work reflects the author's rich background of administrative experience and teaching about administration.

There are 10 chapters that provide a conceptual framework, practical descriptions of the constituencies involved in university governance and management, their values and objectives, the policy analysis process, and university market environments. Several of these chapters discuss the economics of university management; one chapter provides information needed for management; and a final chapter examines the management requirements for institutional survival, stability, and excellence.

This book focuses primarily on the internal management of the university, although important external forces are given considerable attention. There is a heavy emphasis on fiscal management and on the use of quantitative management procedures, although the author also is quite sensitive to the values of the academic community within which these management methods operate.

6:1.0/73

The University As an Organization, James A. Perkins, ed., 273 pp. (McGraw-Hill Book Co., New York).

This volume, one of a series commissioned by the Carnegie Commission on Higher Education, focuses on the university as a unique, multipurpose organization in our society.

James A. Perkins wrote the first and last chapters himself, and in them he outlines some of the conflicts and tensions between the multiple functions of universities. In the last chapter he assesses the tensions between the different functions and offers his opinions as to whether they are likely to lead to the elimination of some of the functions in favor of the central role of instruction. He gives limited attention to the fact that most universities are part of larger, external organizational structures and focuses primarily on the internal organization of institutions.

The book is organized into three major sections. The first gives perspectives on the history, similarities, and differences among American universities. It also provides comparisons between German, English, French and Canadian universities, and has a chapter on the tensions that have developed as a result of considering the university as a community.

The second section contrasts university organization with other institutions: a government agency, a foundation, and a business corporation. The third section considers legal status, corporate authority, and relations with trustees. This section is most relevant to those interested in statewide governance and coordination. Particularly relevant is the chapter by Lyman Glenny and Thomas Dalglish on higher education and the law.

This is a somewhat diffuse series of essays on university organization, but it provides useful new perspectives on some old problems.

6:1.0/60

Governance of Colleges and Universities, John J. Corson, 209 pp. (McGraw-Hill Book Co., New York).

This examination of governance by an experienced economist and management consultant provides a basic overview of institutional governance and administration. It is one of the first to use the conceptual base of organization theory to analyze as well as describe university decisionmaking and governance processes. There is limited attention to external organizational or governance influences, for the book deals primarily with internal governance.

The first chapters describe the nature and significance of governance and the university as an administrative enterprise; then there is a series of chapters about the various groups that participate in decisionmaking: universitywide officers (presidents and vice presidents), academic deans, departmental chairpersons, and faculty. These are followed by chapters that compare university decisionmaking and administrative processes with those of other organizations and identify differences in university goals, personnel, and procedures that make their governance process different. A chapter on external influences on governance is followed by a final chapter that examines the effects of leadership and institutional character (purpose) on decisionmaking and governance.

The book contains a useful commentary on the literature on management, governance, and organization theory in both higher education and general works. While the book is based in part on visits and interviews at 10 institutions, John Corson successfully generalizes his analysis to provide a basic view of university decisionmaking processes in institutions of higher learning.

See also: 12:1.3/80 **A Program for Renewed Partnership: Report of the Sloan Commission on Government and Higher Education,** Sloan Commission.

2.0 STATE ROLE

6:2.0/80-1

Challenge: Coordination and Governance for the 1980's, Education Commission of the States, 84 pp. (ECS, Denver, Colo.).

This report, prepared jointly by the staff of the Education Commission of the States' (ECS) postsecondary department and an advisory panel, contains recommendations to statewide postsecondary agencies for handling the changing conditions of the 1980's. The authors foresee increased functions for statewide agencies in planning for variable enrollment, fiscal retrenchment, and more legislative and gubernatorial oversight.

Specifically, the report recommends that state agencies do more planning, take more active roles in evaluation, provide suggestions applicable to institutional governance, partake in program planning, and review existing and new programs. The report recommends against increased state government control and management, but it does urge that states provide budgets that would enable higher education agencies to provide such necessary services as accountability reviews, program reviews, and budget reviews. Such budgets would complement rather than duplicate legislative or executive budgets.

ECS has avoided recommending "model" structures for state higher education agencies in the past and continues to do so. But states are advised that they will need agencies to plan and "develop the policy framework that will guide postsecondary education through the difficult environment of this decade."

6:2.0/80-2

"Power of State Coordinating Agencies," Richard M. Millard, pp. 65-95 in *Improving Academic Management,* Paul Jedamus and Marvin W. Peterson, eds. (Jossey-Bass, San Francisco).

This paper provides an excellent summary of statewide agency structures, their functions, and their current problems. Millard gives a brief history of the rise of statewide agencies, describes various types (e.g., governing, regulatory coordinating, advisory coordinating), and classifies them according to their program control authority, their budget review authority, their planning responsibilities, and whether they are statutory or constitutional.

The author discusses the impact of the changing economic, demographic, and political conditions of the 1980's on the roles of statewide agencies and how these changes have affected their powers, budgets, and functions. Millard also comments on the controversy regarding a greater state role versus a greater reliance on the marketplace. The book ends with a brief bibliographic essay.

6:2.0/76-1

State Boards of Higher Education, Richard Millard, 69 pp. (American Association for Higher Education, Washington, D.C.).

This report summarizes the historical development of statewide boards and describes their functions, powers, and legal structures. One chapter traces the development of Federal support for state postsecondary commissions (1202 Commissions). A final chapter on issues, trends, and directions describes some current problems that agencies are trying to resolve.

The author, a former director of the Education Commission of the States' Department of Postsecondary Education, drew much of his information from his own extensive background. Thus, the report gives a good general overview. It also provides an extensive bibliography for the reader who wants to pursue the subject in more detail.

6:2.0/76-2

Changing Patterns of Governance in Higher Education, John J. Corson, 65 pp. (University of Arizona Higher Education Program, Tucson).

This collection of papers, first presented at a conference at the University of Arizona, is typically diffuse and somewhat uneven. John J. Corson outlines five external forces that have had a major impact on higher education: demographics, the expansion of knowledge, the pressures for democratization, the expansion of government, and the rise of the "underdog." He concludes that it will be hard to maintain institutions dedicated to developing "inquiring minds" in the face of demands for mass higher education on the one hand, and limited resources on the other. A paper by John D. Millett examines the expanding role of the states in higher education, and one by Marvin D. Johnson deals with the institutional perspective of state-institutional relations. Allan W. Ostar discusses the Federal impact on state and institutional policymaking, and T. Harry McKinney presents a long paper on the organization and coordination of postsecondary vocational programs, and the impact of the Federal Government on state vocational education structures.

6:2.0/75-1

Evaluating Statewide Boards, New Directions for Institutional Research, No. 5, Robert O. Berdahl, ed., 114 pp. (Jossey-Bass, San Francisco).

This is a valuable, although somewhat uneven, set of papers about the contemporary problems of statewide boards and the functions they will need to perform in the future. The papers raise many questions but provide relatively few answers. They do indicate that the future of statewide boards is likely to be uncertain and difficult.

Berdahl wrote the first and last chapters. In the first chapter he calls for periodic appraisal of the performance of boards, reasoning that since most of them have evolved beyond the formative stage, their further development should be guided by external peer reviews of their effectiveness. Pat Callan follows with a perceptive set of recommendations about evaluation of the functions of boards, and Bob Graham, as State legislator from Florida, suggests that legislatures, as shapers and implementors of public policy, are the proper groups to evaluate boards.

Several of the papers—those by Fred Harcleroad, John Keller, John D. Millet, and Frederick Balderston—examine decentralization vs. centralization of authority in dealing with changing problems of the next decade. Decentralization is advocated, despite the fact that centralization seems to be the likely trend. Another theme that runs through several of these papers—those by Miller, Holderman, and Graham—is the need for statewide boards to develop and maintain effective political relationships. The authors believe that such relationships will influence the weight and effectiveness of the boards' policy recommendations. This set of papers raises important questions, and will be useful to both higher education administrators and students of educational organization and evaluation.

6:2.0/75-2

Administration of Statewide Systems of Higher Education, Fred Harcleroad, ed., 51 pp. (American College Testing Program, Iowa City, Ia.).

This collection of conference papers covers several specialized aspects of administration of statewide systems, the need for better information, student aid programs as a component of statewide systems, and centralized vs. decentralized organizations. Two of the papers, "Changing Patterns of Statewide Coordination," by Richard Millard, and "Organizing State Systems for Maximum Effectiveness," by Fred Harcleroad, discuss general trends and issues in the functions and structures of boards. Harcleroad discusses the applicability of new patterns of decentralization in business to state board-institutional relationships.

Two other papers, one by John D. Millett on the analytic use of information in statewide planning and the other by Ben Lawrence on the analytic use of data in postsecondary planning, discuss the need for and uses of information in statewide planning and coordination. John Folger continues the theme of information use by examining the kinds of data and analysis needed to assess progress (or lack of it) in achieving equal educational opportunity at the state level. Joseph Boyd discusses the growth of student assistance programs and their relation to statewide planning and coordination.

A theme covered by three of these papers is the need for information more relevant to policy and planning problems of state agencies. Another theme is the persistence of tension between statewide oversight, coordination functions, and institutional autonomy.

6:2.0/73-1

Governance of Higher Education: Six Priority Problems, Carnegie Commission on Higher Education, 349 pp. (McGraw-Hill Book Co., New York).

This report deals with the decisionmaking aspect of governance and presents recommendations in six areas where tensions over such decisionmaking have developed.

The first area is the relation of the campus to external authority (state and Federal). Selective independence rather than autonomy is recommended, with the campus being independent in intellectual conduct, academic affairs, and administrative arrangements. The Commission developed a detailed list of areas properly requiring public control and those requiring institutional independence. The Commission also developed five recommendations dealing with control and independence. One suggestion is that each state define the proper state sphere of authority and the areas of institutional independence. The recommendations in this chapter are balanced, well-reasoned, and backed up by evidence.

The other priority problems examined are: the governance role of the board of trustees, its composition, and its relation to the president; collective bargaining and faculty power; principles and practices of tenure (which is both a governance and a personnel issue); the proper role of students in academic and institutional governance and decisionmaking; and decisionmaking in times of emergency and crisis. Five appendixes make up about two-thirds of the book and include faculty and student responses to a questionnaire on governance issues, as well as statements about governance issued by several groups. The six problem areas are connected only by their relationship to and effect on decisionmaking.

6:2.0/73-2

Public Universities, State Agencies and the Law; Constitutional Autonomy in Declne, Lyman Glenny and Thomas Dalglish, 194 pp. (Center for Research and Development in Higher Education, Berkeley, Calif.).

The authors of this report review the legal relationships between public universities and the state. They examine the meaning of constitutional status and how it has been affected by court decisions and by an increasing involvement of state agencies in institutional affairs. The authors conclude that state agencies have increased their supervision over higher education, and that constitutional status confers increasingly limited independence upon the institutions that have it.

6:2.0/73-3

Coordination or Chaos? Report of the Task Force on Coordination, Governance and Structure of Postsecondary Education, 110 pp. (Education Commission of the States, Denver, Colo.).

A task force of institutional representatives, legislators, and state postsecondary agency heads prepared this report under the auspices of the Education Commission of the States. The task force was headed by former Governor Robert Scott of North Carolina.

The report reviews the forces affecting higher education, stresses the key role of planning in state coordination, and discusses state agency functions—planning, program review and evaluation, and budget review.

The report also contains recommendations that the Federal Government recognize the uniqueness and autonomy of the states. The recommendations underline the importance of planning and urge that all parts of public and private postsecondary education be included in coordination, not just public colleges and universities. Each state is encouraged to develop a single statewide agency for planning and coordination and to delineate the respective responsibilities and authority of its agencies and institutions. Other recommendations deal with decentralization of decisionmaking, legislative support of coordination and planning through a state agency, and the undesirability of any state-level preaudits.

The report concludes that postaudits are the proper and effective means of requiring accountability. It ends with a series of very general recommendations, the first of which is that there is no single best way of performing state-level functions. The task force suggests that each state develop a structure that fits its own history and political conditions.

6:2.0/71-1

Statewide Coordination of Higher Education, Robert O. Berdahl, 285 pp. (American Council on Education, Washington, D.C.).

This book, completed near the end of the 1960's when the expansion of higher education was slowing, is the most comprehensive examination of statewide coordination in the wake of the boom of the sixties. In the late 1960's most states had established a statewide agency; therefore, the issue of institutional autonomy versus public control is the main point of this book, which complements the 1959 study by Lyman Glenny.

The book, which is based on indepth visits to 13 states and on reports commissioned by 6 others, contains a thorough study and discussion of the development of and differences among statewide agencies, as well as chapters on board membership and staffing and on the functions of planning, budget review, and program review. The chapter on the relationships of statewide agencies to governors and legislatures on the one hand and to public institutions on the other provides stimulating contrasts for discussion.

One important area of autonomy and self-government is in the private sector. This study is of special interest to those in the private sector because of its comprehensive review of state aid to private institutions and the relationship of this aid to statewide coordination and planning. Berdahl recounts the history of public aid to private colleges, notes the shift in enrollment from private to public institutions in the previous three decades, and describes the need for state aid. Institutional accountability and the politics of state aid to private institutions are discussed in light of the role of coordinating agencies as they operate in various states.

The conclusion contains recommendations for the coordination necessary to implement effective higher education development, but at the same time suggests that coordination be tempered by a sensitivity to necessary institutional freedoms and traditions of self-government.

6:2.0/71-2

Coordinating Higher Education for the 1970's, Lyman Glenny, Robert O. Berdahl, Ernest Palola, and James Paltridge, 96 pp. (Center for Research and Development in Higher Education, Berkeley, Calif.).

This report was prepared as a "guide for political and institutional leaders, as well as coordinating boards and their staffs." The report begins with arguments for coordination—rather than governance—in statewide boards. This is followed by chapters that briefly discuss several topics and then offer guidelines for boards and their staffs to use in developing functions. Topics covered are: membership and organization of the board; planning; program review; budgeting, operating, and capital; data bases for planning; administration of aid programs; and nonpublic higher education.

This guide has the advantages of brevity and clarity, and the authors offer specific suggestions in controversial areas. As a result, most practitioners can find some things with which to disagree, but a lot more with which to agree. The booklet has probably been used as a guide to practice more than any other single publication, with the possible exception of D. Kent Halstead's *Statewide Planning in Higher Education* (12:2.0/74).

6:2.0/59-1

Autonomy of Public Colleges, Lyman Glenny, 325 pp. (McGraw-Hill Book Co., New York).

This is the first comprehensive treatment of statewide coordination, and it has become a classic in the field. Glenny offers an excellent discussion of the development of coordination up to 1957, and has chapters dealing with the major functions of planning, policymaking, program allocation, and budgeting. Glenny examines the tension between institutional autonomy and some form of effective state coordination, and identifies procedures that are likely to strike a balance between them. This book was based on visits and studies in 12 states, and is a major contribution to higher education research.

6:2.0/59-2

The Campus and the State, Malcolm Moos and Frances Rourke, 414 pp. (Johns Hopkins Press, Baltimore).

This is a detailed report of the staff work done for the Milton Eisenhower Commission, which produced a much shorter summary report and recommendations, *The Efficiency of Freedom*. The Commission was established to examine the growth of state controls (some by state coordinating and governing boards, but a majority as a result of the budget process) over institutions of higher education. Opinions were obtained from a wide spectrum of institutional administrators, most of whom decried the growth of controls, procedures, and red tape.

The authors' major themes, which are supported by the data and opinions they collected, are that freedom and autonomy of public institutions should be restored, and that controls and regulations are a major deterrent to institutional effectiveness. The authors conclude that decentralization of authority at each campus to the maximum extent feasible is the best policy to follow.

See also: 1:0/76 **Ambiguity and Choice in Organizations,** James March and Johan Olsen, 408 pp. (2nd Ed. New York, Columbia University Press.)

12:1.1/75-1 **Formulating Policy in Postsecondary Education, The Search for Alternatives,** John F. Hughes and Olive Mills.

12:1.2/76-2 **The States and Higher Education: A Proud Past and a Vital Future** and commentary **Supplement,** Carnegie Foundation for the Advancement of Teaching. This volume contains an important discussion and recommendation about State-level governance arrangements.

12:1.2/71 **The Capitol and the Campus: State Responsibility for Postsecondary Education,** Carnegie Commission on Higher Education.

12:2.0/74 **Statewide Planning in Higher Education,** D. Kent Halstead.

15:1.2/77 **State Budgeting for Higher Education: The Political Economy of the Process,** Frank Schmidtlein and Lyman A. Glenny.

15:1.2/76-3 **State Budgeting for Higher Education: Interagency Conflict and Consensus,** Lyman A. Glenny.

3.0 TRUSTEESHIP

6:3.0/80

Recommendations for Improving Trustee Selection in Private Colleges and Universities, and **Recommendations for Improving Trustee Selection in Public Colleges,** National Commission on College and University Trustee Selection, 46 pp. and 52 pp., respectively. (Association of Governing Boards of Universities and Colleges, Washington, D.C.).

These companion volumes offer recommendations for the selection of trustees in both public and private institutions. The recommendations are designed so that in each case the persons selected have the ability and commitment, the necessary independence, and sufficient diversity and balance to provide effective decisionmaking.

Since most private boards select a majority of their own members, the 14 recommendations contained in the volume on private college selection are directed at trustees themselves. The recommendations cover screening and selection, orientation, length of service, eligibility for service, conflict of interest, and the role of the alumni.

The 18 recommendations for the selection of public trustees, as for trustees at private institutions, are directed at the public officials who make the selections. These recommendations deal with such areas as nomination and screening, appointment and confirmation, orientation, ex officio members, residency and political affiliation, and length of term.

See: 28:1.2/80-1 **Handbook of College and University Trusteeship,** Richard T. Ingram and Associates.

This is the definitive work on what college trustees need to know and do. The purpose of the handbook is ". . . to offer a new synthesis of what is now known about how governing boards function, how they should function and how they can be helped to fulfill their legal, moral, and public obligations."

The 19 contributing authors cover topics such as the significance of trusteeship, board management, institutional oversight, resource development and management, and performance assessment. They also include a section on trustee self-study criteria, trustee audit, conflict-of-interest rules, and recommended reading.

The chapters cover clearly and comprehensively all of the functions that a board should perform. The emphasis is on practical advice, and the chapters contain a number of useful guides and checklists. For example, John Nason's chapter on selecting a chief executive has sections on: setting up the selection procedure; organizing the search committee; deciding on the type of person wanted; developing a pool of candidates; screening, interviewing and selecting candidates; and making the appointment. A presidential search checklist is included, and a final section, "The Silver Lining," explains why it is all worthwhile.

Although the authors deal with the problems of both public and private trustees, they write more from the perspective of the independent private board responsible for a single campus than from the perspective of the public board, which is not only subject to a variety of state rules and constraints but is often responsible for many campuses.

A bibliographic essay for each chapter provides suggestions for additional reading. "Resource" sections outline procedures for "Trustee Audits," "Self-Study Criteria for Private Boards," "Bylaws for Independent Colleges," and "Statement on Conflicts of Interest." This book is an essential reference for all trustees and for those who work with them.

See: 22:1.2/77 **Trusteeship: Handbook for Community College and Technical Institute Trustees,** George E. Potter.

This comprehensive handbook for the trustees of community colleges covers the same general topics as the *Handbook of College and University Trusteeship* (28:1.2/80-1); namely, presidential selection, trustee role and responsibilities, board organization, development activities, evaluation of institutional effectiveness, working with unions and collective bargaining, financial management and oversight, and legal issues and the selection of an attorney. However, whereas that volume looks at many of these topics from the perspective of an independent college, Potter's discussions reflect the overwhelming local and public nature of the 2-year college. Additionally, Potter addresses such special concerns of 2-year colleges as working with the community and dealing with political action.

This volume should be required reading for all 2-year college trustees, and will be helpful also to those who work with them.

See: 32:2.0/80-3 **Presidential Search: A Guide to the Process of Selecting and Appointing College and University Presidents,** John W. Nason.

As its title implies, this is a comprehensive guide to selecting a chief executive. The author and Nancy Axelrod sent questionnaires about their search processes to 450 institutions that had selected presidents during 1975-76 and 1976-77. These actual procedures skillfully illustrate the various steps in selecting a president. The author presents checklists covering each step of the process and practical advice on dealing with these various steps. This guide is invaluable for any trustee who must select a new chief executive, a task faced by 300 to 400 institutions every year.

6:3.0/75

The Future of Trusteeship, the Role and Responsibilities of College and University Boards, John W. Nason, 52 pp. (Association of Governing Boards of Universities and Colleges, Washington, D.C.).

John Nason is one of the most prolific writers on the role and functions of trustees in America. He has a broad perspective of the trustee's role, as a Vassar trustee, and has been president of two colleges (Swathmore and Carleton).

This systematic description of the functions of the trustees and of the lay board system in America covers such topics as presidential search, selection and evaluation, fundraising, setting of institutional priorities, organization of the board, and evaluation of institutions. It was the best comprehensive treatment of what trustees need to know until the publication of the *Handbook of College Trusteeship* (see 6:3.0/80), in which

Nason also had a major part. Since both volumes were designed to give a comprehensive overview of the work of trustees, *Future of Trusteeship* has become more of an historical work. However, as with all of his writings, the book is enhanced by Nason's clear and direct prose style.

4.0 POLITICS OF HIGHER EDUCATION

6:4.0/80

Politics of Higher Education, Edward R. Hines and Leif S. Hartmark, 75 pp. (American Association for Higher Education, Washington, D.C.).

This research report (ERIC/Higher Education Report No. 7) emphasizes that higher education as a social institution is closely entwined with the political process of America's liberal democracy, that the relationship is dynamic, and that socio/political relationships are involved at the national, state, and local levels of government.

A chapter on Federal Government relationships deals with financial support, government regulation, and lobbying activities, while a chapter on state government relationships deals with statewide coordination, accountability, institutional autonomy, budgeting, and interinstitutional relationships. A chapter with a different, and somewhat discordant, concern deals with the internal operation of a campus as a political system. This same chapter reviews the community college role in politics.

6:4.0/75

The Political Terrain of American Postsecondary Education, Clyde E. Blocker, Louis W. Bender, and S. V. Martorana, 223 pp. (Nova University, Fort Lauderdale, Fla.).

The separation of higher education, public and private, from the political system is one of the traditions of American society. This separation rests largely on the understanding that the contributions of higher education to society are essentially apolitical. Moreover, the search for knowledge and the dissemination of knowledge are to be protected from external political manipulation.

The authors of this study argue that many factors encourage increased state and Federal concern with higher education. These factors include the Federal drive for research and manpower training, the egalitarian move to broader access to higher education, the changing roles and missions of institutions as they respond to changing social circumstances, public concern with student activism in the 1960's, and institutional demands for increased financial support. Conflicts between governments and institutions are identified as centering on issues of autonomy, academic freedom and tenure, management of resources vs. essential processes of education, and institutional diversity.

The discussion of the political environment of higher education provided in this study is at best somewhat sketchy. The authors attempt to identify those elements in society that affect higher education—the power brokers, the sources of political power, and political tactics. This information is elementary, and could be misleading at times. A consideration of internal institutional politics acknowledges their existence without demonstrating their relevance to external political events. Attention is given to community-level politics, state-level politics, Federal-level politics, and the politics of nongovernmental organizations.

This study explores an important subject but lacks an adequate conceptual framework and a factual base from which to develop a general understanding of the relationship between higher education performance and political action.

5.0 DESCRIPTIONS OF COORDINATING AND GOVERNING ARRANGEMENTS

See: 12:4.1/A-7 **State Postsecondary Education Profiles Handbook,** Nancy M. Berve, ed.

This annual profile series provides data on state structures and related enrollment and finance statistics in higher education. The series is a joint project of the Education Commission of the States, the National Center for Higher Education Management Systems, and the State Higher Education Executive Offices.

Data for each of the 50 states are provided in three sections. The first section provides descriptions of state-level organizations for higher education, along with brief descriptions of their functions. Changes in these functions can be identified by comparing descriptions for successive years. The second section contains statistical indicators for postsecondary education, receipts and expenditures, tuition, average faculty salaries, enrollments, measures of tax effort, and share of taxes used for higher education. The third section lists reports and special studies from each state agency.

Future statistical information will be provided in more detail in *Financing Higher Education in the Fifty States* (see 5:6.0/S). The descriptions of state structures will be updated periodically by the Education Commission of the States (see 6:5.0/79).

6:5.0/80

The Study of Politics and Education: A Bibliographic Guide to the Research Literature, Anne H. Hastings, 291 pp. (ERIC Clearinghouse on Educational Management, University of Oregon, Eugene).

This extensive bibliography is not annotated, but all authors and titles are listed in the selected volumes of contributed papers. The bibliography is organized into eight major sections and 47 subsections, and works are cross-referenced when they deal with more than one topic.

The term "politics" is defined broadly and therefore covers a wide variety of subjects, such as policy, governance, finance, planning, and management. Section One deals with the politics of education as a field of study; Section Two, with elementary and secondary education; Section Three, with economic and fiscal studies; and Section Four, with specialized topics such as vouchers, accountability, and the politics of research. Section Five deals with "the politics, governance, and finance of postsecondary education," and over 170 items are listed in its nine subtopics. Section Six contains general education literature; Section Seven, general works on politics and public policy; and Section Eight, selected works on general government.

The bibliography is so broad and all inclusive that it does not focus very sharply on the politics of education, and only a small number of entries are really "research literature" as the title implies. However, the bibliography does provide a comprehensive nonselective starting point for a review of the literature.

6:5.0/79

"Survey of the Structure of State Coordination or Governing Boards," *Higher Education in the States,* Nancy M. Berve, 57 pp. (Education Commission of the States, Denver, Colo.).

This report provides, in tabular form, information about the organization and structure of all statewide coordinating or governing boards, as well as limited information about the multicampus and institutional governing boards in each state. Items of information include: legal basis; type of agency (governing or coordinating); appointing authority for chief executive; legal responsibility for the functions of planning, budget review, and program review; size of board; method of appointment; and types of membership.

This report provides a good overview of each state's higher education structure as of July 1, 1979, and it can be compared with entries 6:5.0/72 and 6:5.0/60 to discover changes in structure over a 20-year period.

6:5.0/75

The Changing Map of Postsecondary Education, Aims C. McGuinness, Jr., T. Harry McKinney, and Richard M. Millard, 268 pp. (Education Commission of the States, Denver, Colo).

This is a comprehensive report on the establishment of State Comprehensive Planning Agencies under Section 1202 of the Higher Education Amendments of 1972. The report contains three chapters plus appendixes of basic source documents.

The first chapter, by Aims McGinness, who helped draft the legislation, is a detailed account of the development by the Congress of the idea for comprehensive planning commissions. This chapter also reviews Office of Education actions to implement (or delay the implementation of) this section of the legislation.

The second chapter, by T. Harry McKinney, reviews the state responses to the act. The third chapter, by Richard M. Millard, reviews the problems and prospects growing out of this first Federal act to assist state comprehensive planning and is recommended for the average reader who wants an overview of the development of this legislation. For scholars interested in the origins, development, and state responses to this legislation, the entire report is a valuable source.

6:5.0/72

State Boards Responsible for Higher Education, J. L. Zwingle and M. E. Rogers, 55 pp. (U.S. Government Printing Office, Washington, D.C.).

This report is an update of the 1960 report by S. V. Martorana and E. V. Hollis on state organization and structure for coordinating and governing higher education (see 6:5.0/60). State-by-state descriptions cover not only statewide boards, but also sector, multicampus, and individual boards. Organization charts are presented for each state. This work is a very useful basic reference on organization.

6:5.0/71

Legal Bases of Boards of Higher Education in Fifty States, Robert L. Williams, 185 pp. (Council of State Governments, Chicago).

This report is an update of the author's 1967 study, "Legal Bases of Coordinating Boards of Higher Education in Thirty-nine States." It starts with a brief introduction and summary table, which the author admits oversimplifies the complex relationships and functions of the boards. These are followed by 50 state descriptions of the composition of their boards, along with their powers and duties. The basic sources of information were the statutes under which each board operated. The report did not identify any functions added by regulations, by practice, or by fiscal notes on the budget act, which is a source of legislative direction to boards in some states. Even with these limitations, this is a useful source document about the legal basis for statewide boards in 1971.

6:5.0/70

Coordination of Higher Education: An Annotated Bibliography, James Wattenbarger, 28 pp. (Institute of Higher Education, University of Florida, Gainesville).

This work contains 110 briefly annotated items covering coordination during the 1960's, a number of state reports, and a list of general articles, books, and special reports. It is recommended for persons interested in reviewing the literature on state coordination prior to 1970.

6:5.0/60

State Boards Responsible for Higher Education, S. V. Martorana and E. V. Hollis, 254 pp. (U.S. Government Printing Office, Washington, D.C.).

This was the first comprehensive state-by-state description of the organization and boards responsible for public higher education. The report contains a general discussion and analysis of higher education boards, followed by state-by-state descriptions of the organization and structure for governing and coordinating public higher education. Since this volume appeared before most states had added coordinating boards, it provides a useful picture of the administrative structure for higher education before the major expansion of both higher education and coordinating arrangements.

7

History

Frederick Rudolph

The history of education attempts to understand the past and, in doing so, sometimes succeeds in clarifying the present and guiding us to the future. Since education itself is subject to varying definitions, it might be useful to note that the selection of bibliographic entries for this topic has been guided by two definitions of education that have received wide acceptance among historians of education. One, offered by Bernard Bailyn in *Education in the Forming of American Society* (1960), describes education "not only as formal pedagogy but as the entire process by which a culture transmits itself across the generations." Lawrence A. Cremin refined this historical focus in the first volume of his projected multivolume history of American education, *American Education: The Colonial Experience 1607-1783* (1970). In it, Cremin defines education as "the deliberate, systematic, and sustained effort to transmit or evoke knowledge, attitudes, values, skills, and sensibilities." Cremin narrows Bailyn's definition by emphasizing structured and purposeful education, rather than accidental, implicit, and tangential educational experience.

Since the purpose of this bibliography is to serve the needs of higher education planners and administrators, the selection of entries has been made without slavish adherence to either the Bailyn or Cremin definition. A comprehensive bibliography of educational history would include, for instance, works on the history of radio, the press, and Hollywood, an understanding of which might help college and university administrators to understand better the challenges of their own jobs. However, such works have been excluded from this chapter in favor of selections that instruct on what colleges and universities have done, how they have fared, and with what consequences.

General. This section includes those books that provide a general understanding of historical developments over an extended period of time, as well as monographs focused on a general topic.

Institutional Histories. Every year, a great number of colleges and universities reach significant birthdays. Often the celebration calls for a history of the institution. Even though ventures of this sort may serve the needs of the sponsoring colleges, few are likely to be compellingly instructive to those on the outside. Selections in this section represent historical explorations of the first order that make significant contributions to an understanding of the entire national experience with higher education.

Admissions, Articulation, Secondary Schooling. The relationship between the schools and the colleges is vital to the health of both. The articulation between them has often been clumsy, and awareness of the other's particular needs and functions has sometimes been lacking. Selections here represent not only works on the process of selecting students from the secondary school pool, but also important historical studies on education in the schools.

Students. Although often neglected and little understood as creative innovators in higher education, students erupted in the 1960's and 1970's into academic consciousness in most dramatic ways. They also became the subject of historical study, as reported in several volumes in this section.

Curriculum. The historical literature of higher education does not yet include an account of the careers of the liberal arts subjects, as well as others, that illustrate how the major academic disciplines developed, how they were modified by social and intellectual change, how they were taught, and how they were experienced on the campuses. In the meantime, the territory is being surveyed and groundwork is being laid.

Biography and Autobiography. Biographies and autobiographies, though not strictly history as it is taught in the graduate schools, nonetheless are history in that they capture significant moments, make intuitive judgments, and provide the whole fabric of higher education with a sense of human involvement. Men and women wrestling with the problems and challenges of their day, either as the subject of biography or in their own mature recollections, are history alive.

Learning and Scholarship. Higher education is an arena where ideas are at work, where, indeed, ideas are one of its products. The role of colleges and universities in supporting and shaping the intellectual life of the country is an area of historical study that is ripe for growth.

Among the selections assigned to the various categories of this topic, there are no contemporary documents or collections of documents. Although such materials may be of historical importance or potentially significant for the work of future historians, they are not yet history. Elsewhere in this bibliography are the documents from which history will be written in the future.

TOPIC ORGANIZATION

7: History of Education
- **1.0** General
- **2.0** Institutional Histories
- **3.0** Admissions, Articulation, Secondary Schooling
- **4.0** Students
- **5.0** Curriculum
- **6.0** Biography and Autobiography
- **7.0** Learning and Scholarship

1.0 GENERAL

7:1.0/81

The University Library in the United States: Its Origins and Development, Arthur T. Hamlin, 271 pp. (University of Pennsylvania Press, Philadelphia).

The library is today accepted as such a central fixture in higher education institutions that it is possible to argue convincingly that only in marginal colleges and universities is the chapel or the athletic field more important. This informal, chatty history makes clear that, until recently, this was not so; it also constitutes, to some extent, the memoirs of a veteran university librarian and an anecdotal chronicle of the rise of the research library in the approximately 150 universities in the United States with professional schools.

Arthur Hamlin's history is full of surprises and of reminders of what we knew or should have known: early college libraries were not intended for students but for professors and tutors if they were so inclined; the first college libraries built as such appeared in the early 1840's at the University of South Carolina, Harvard, Yale, and Williams; student literary society libraries surpassed in breadth and size the holdings of their colleges until mid-century; not until 1861 did Harvard have a card catalogue available to persons other than its staff.

The emergence of the American university in the years after the Civil War, the development of academic professionals, and the creation of a whole new world of American scholarship led to the creation of the university library as the heart of the university enterprise. In 14 chapters, 5 chronological and 9 topical, Hamlin traces the history of the American academic library from the few books with which Harvard began to the present, when a university library may routinely acquire 200,000 volumes annually. The topical chapters deal with building collections, financial support, buildings, service, cooperation among libraries, cataloguing, and other matters, all treated historically.

The year 1876 was a signal year for the university library: the American Library Association was founded, the *Library Journal* was first issued, and *Cutler's Rules for a Dictionary Catalogue* was published, as was the outline of Melvil Dewey's decimal system. From that time on, it was simply a matter of bigger and better: under Justin Winsor, Harvard pioneered with a reserve book system and student access to stacks; Columbia, under Dewey, organized the first reference department, and, under James H. Canfield, created an undergraduate library separate from the university research library. Yet not until after World War II, as Hamlin tells it, did the American university library arrive at established professional procedures, direction, and administration. And since then, the research library, under the impact of new technologies, has been learning to live with oral history, dial access, networking, and microprints. Some problems, however, are beyond solution: "Few libraries," he notes, "would be so naive as to put bound copies of *Playboy* on the open shelf."

7:1.0/80

American Education: The National Experience 1783-1876, Lawrence A. Cremin, 607 pp. (Harper & Row, New York).

In this second volume of his projected three-volume history of American education, Lawrence Cremin covers the years between the founding of the Republic and the centennial. His focus is on the creation of an American style in education, defined, as in the earlier volume, to include those agencies, formal and informal, that have shaped "American thought, character, and sensibility." For the years under study, he defines that style as a compound of evangelical religion, popular aspirations, and utilitarianism.

Cremin gives higher education even less coverage than in his volume for the earlier period, apparently on the grounds that the great expansion in educational enterprise during these years did not mean a significant increase in college enrollments. He does, however, place higher education in appropriate context. And if the nineteenth century does not lend itself as readily as the colonial period to a self-sufficient history of American society and culture, there is much here that enlarges and clarifies the meaning of education as a social process. The author gives attention to the various schemes of educational organization proposed by Rush and others, institutional changes, the Dartmouth College case, curricular movements, and professional careers. Approximately 5 pages of the 72-page bibliography cover higher education.

The relative weight given to higher education in the first two volumes of Cremin's history should not turn those concerned with colleges and universities away from a work that is monumental in its intent and likely to become classic in its field. These volumes provide a balance and a sense of context that are often denied to myopic inhabitants of academia.

See: 32:2.0/80-4 **Presidents, Professors and Trustees,** W. H. Cowley (Donald J. Williams, Jr., ed.).

W. H. Cowley, who died in 1978, had a distinguished career in higher education that included the presidency of Hamilton College and the first incumbency of the David Jacks Professorship of Higher Education at Stanford. The three books on the history of higher education on which Cowley was forever at work were experienced as preliminary drafts by his students at Stanford, but none were completed during his lifetime. This history of academic government was prepared for publication by Donald J. Williams, Jr., one of his former graduate students.

In this book, Cowley digresses, reminisces, inspires, and occasionally scolds. And if the book suffers from being so long in incubation, it nonetheless expertly clarifies the relationships and responsibilities that constitute the fabric of academic government. Cowley understood and respected the civilizing function of institutions, and clearly enjoyed the opportunity this book gave him to dispel the myths that he recognized as getting in the way of felicitous and effective governance.

The myths that receive his attention include the belief in a golden age in which faculties once operated colleges and universities as free republics of scholars, the notion that lay trustees and presidents are American inventions that intruded upon unspoiled faculty territory, the assertion that faculties are essentially powerless and disenfranchised victims of trustee and presidential authority, and the idea that student and alumni voice and power in academic governance are of recent origin.

Cowley's first six chapters subject these myths to the scrutiny of a scholar who goes back to the continental and British origins of American practices, and then delineates the American experience with the power and authority of presidents, professors, trustees, and others. In the next three chapters he shows how these central and responsible elements of governance have been influenced in their decisions by accrediting bodies, learned societies, individual benefactors, philanthropic foundations, and government. A concluding chapter on "Conflict and Interdependence in Academic Government" is a plea for acceptance and understanding of the central importance, for professors and their work, of the institutional framework and cooperative communities that sustain them.

If there is a target of Cowley's analyses it is narrow, exclusive faculty governance: authority vested in the professors at the expense of presidential effectiveness and lay responsibility. One of the pervasive and well-documented themes of the book is the danger to institutions of higher learning of strong faculty government. A corollary theme suggests that weak presidents have not generally meant strong faculties, but rather strong governing boards.

The subtleties and complexities of institutional life often escape Cowley; his experience often misguides his generalizations—every place is not Dartmouth, Hamilton, and Stanford, nor are the influences at work in one decade exactly the same in the next. Even so, presidents, professors, and trustees alike should be aware of the cautions that Cowley has summoned from history. They need not be guided by them, but they should surely know about them.

7:1.0/78

"The American College in the Nineteenth Century: Toward a Reappraisal," James McLachlan, *Teachers College Record,* Vol. 80, pp. 287-306.

This brief essay is judicious and imaginative, and it speaks with the authority of a scholar who is moving the history of American higher education in new directions and toward a not-yet-attainable new synthesis. In it, James McLachlan, a biographer of Princeton alumni and a historian of boarding schools and of extracurricular college life, assesses "where a generation of renewed attention to the history of American education" leaves us with respect to an historical understanding of the development of higher education. He attempts "an overview of the whole field by discussing, first, the prevailing conventional wisdom concerning the history of the nineteenth-century American college and university: second, recent studies that suggest the revision of the accepted account; and last, some modest proposals concerning future research in the field."

Confessing that the historian of education can now deal only with "fragments of an as yet unknown whole," in the absence of any acceptable synthesis of American history into which the history of higher education can be placed, he draws attention to fragments of understanding that can be expected to inform future studies. Among them are the role of "double vision" in shaping the early colleges as advance agents of civilization, even as they were required to be responsive to barbaric tendencies in the developing national culture. Another is the development, by 1900, of "two structures of *collegiate* education": one cosmopolitan, professional, and secular in orientation, defined by university aspirations, lacking local or narrow attachments and intentions; the other local, catering to specific clienteles determined by such qualities as sex, race, ethnicity, religion, and geography, and lacking the professional, secular, and cosmopolitan qualities of the other.

McLachlan's "modest proposals" suggest how much yet needs to be done before a satisfactory new synthesis can be reached, but his work gives clear evidence that he at least is on the right track. He would have a new generation of scholars move us beyond the informed guessing with which we have generalized about college founding in the nineteenth century and get down to the business of finding out exactly what colleges were founded, for what purpose, where, and for how long. He would direct the energies of others to recapturing the nuances and directions of student life, and still others to studying the college man and woman in action—the graduates, the products, the very justification for the whole academic enterprise.

7:1.0/76-1

Mars and Minerva: World War I and the Uses of the Higher Learning in America, Carol S. Gruber, 293 pp. (Louisiana State University Press, Baton Rouge).

This study of the behavior of the academic community during World War I, in Carol Gruber's words, is concerned with "the impact of the war as a crisis situation that brought to the surface key problems of defining the nature, function, and social value of higher learning in America." Her history explores "the consequences and implications of professors' becoming servants of the state in their role as public propagandists, in their response to wartime threats to academic freedom, and in their cooperation with the military assault on the autonomy of the campus."

Based on research in public records as well as major manuscript collections in university and government archives, this book finds the professors at best guilty of compromising their professional ideals, at worst of "mental corruption." In Gruber's view, the eagerness with which academicians engaged in propaganda, assisted in campaigns against the foreign language press, lent their reputations to the authentication of forged documents, and overstated German atrocities is as much a part of the problem as are their actions. What was missing from academic behavior was an unimpassioned disinterestedness, a cool skepticism, a critical stance, a regard for principle. But civilization was at stake, and the professors did not want to be found wanting.

The fledgling American Association of University Professors, instead of appointing a watchdog committee on the threats of war to the profession, appointed one to study ways in which professors might best serve the needs of the state. Academic freedom suffered. And on October 1, 1918, on 516 university and college campuses, the War Department—in the short-lived Students' Army Training Corps—subjected higher education in the United States to a startling experience with the completely militarized institution.

Gruber describes how all this happened, explains why, and in the process makes clear that, in times gone mad, colleges and universities are not necessarily repositories of sane and human values. She believes that because the American university had just recently emerged as a "service" institution, the professors, then lacking a "collective consciousness and solidarity," were unaware of the difference between serving the society in peacetime and the state in wartime. There is evidence, too, to support her conclusion that the war gave both professor and university an opportunity to "escape from alienation" and "lay the ghost of ivory-towerism that haunted them." Whether the subsequent strengthening of professional consciousness and authority would make any difference was, of course, tested by the experiences of higher education in World War II, a subject on which Gruber is at work.

7:1.0/76-2

The Revolutionary College: American Presbyterian Higher Education, 1707-1837, Howard Miller, 381 pp. (New York University Press, New York).

This book demonstrates how far the writing of the history of American higher education has come from those bleak parochial histories that seldom even entertained the graduates. Howard Miller takes an entire constellation of institutions—the seven Presbyterian colleges and academies of the colonial period—and shows how Presbyterian "views of the good society, politics, and religion" shaped the institutions and how the colleges in turn influenced the Church. He achieves a successful integration of religious and educational history.

Because of the Church's hierachical organization and its commitment to central authority, the Presbyterian institutions shared a common experience lacking in the Congregational colleges founded in New England and elsewhere by Yale graduates. On the other hand, Princeton and the six institutions founded by its graduates lend themselves admirably to the kind of analysis likely to deliver informative generalizations. The six other institutions, whose records, along with Princeton's and those of the Church, were basic to Dr. Miller's research are: Hampden-Sydney, Liberty Hall Academy (Washington and Lee College), Dickinson, Washington Academy and Canonsburg Academy (Washington and Jefferson College), and Transylvania Seminary.

Miller divides his history into three periods: Religious Reform (1707-1775), Revolution (1775-1795), and Early Republic (1795-1820). In the first period, both Church and college joined forces to establish a Christian Commonwealth, bending curriculum, the classics, and philosophy to this optimistic purpose. Stagnation and decline overtook the institutions toward the end of the period, which was followed by the unsettled Revolutionary era when students and administrators struggled for authority. By 1800 the colleges had become bastions of orthodoxy, fiercely denominational. The organic view of society that had once informed their hope of bringing society under their sway was abandoned. The expectation that the colleges and the Church in cooperation might establish a moral community gave way to a resolution to compete as aggressively as possible with all those other churches and colleges that somehow were laying claim to the right to bring heaven to earth. What had been a grand religious design was becoming a struggle for survival.

7:1.0/75

A Bibliographic Guide to American Colleges and Universities: From Colonial Times to the Present, Mark Beach, ed., 314 pp. (Greenwood Press, Westport, Conn.).

This bibliographic guide, although it has shortcomings, does fill a need, and it may be supposed that subsequent editions will make it more complete and therefore more reliable. The editor has compiled 2,806 entries that, with the exception of a few general titles for each of the 50 states, pertain to specific institutions.

Books, articles, and dissertations on subjects that pertain to higher education but that are not limited to specific institutions are generally excluded from this guide. On the other hand, the guide provides a ready reference to institutional history. The listing of institutions, by state, follows the same order as that used in other standard guides. For each institution, the citations are listed alphabetically and uncritically, except for the first, which is the editor's choice of the most important work on the subject—perhaps the most comprehensive work or the most scholarly or most recent, but not necessarily all three.

No allowance is made for cross-references, and thus a book that deals in depth with five institutions (George E. Peterson, *The New England College in the Age of the University*) appears only under Amherst. Bliss Perry's *And Gladly Teach,* which is as much about growing up on the

Williams campus and teaching there as it is about his Harvard career, is listed only under Harvard. And there are significant omissions.

But this is a bibliographical beginning that deserves to be encouraged, developed, and refined. It is imaginative in its inclusion of autobiographical and biographical materials (*The Autobiography of Lincoln Steffens* for the University of California, Berkeley), and it is not limited to existing institutions. The editor is probably more unerring in his choice of the most important book for each institution than in his selections of the other important works that should be listed. As is the case for most bibliographies, however, use and editorial refinement will improve it.

7:1.0/74-1

"Perspectives on the History of Women's Education in the United States," Jill Conway, *History of Education Quarterly*, Vol. 14, pp. 1-12.

This essay, written before Jill Conway became the president of Smith College, provides a thoughtful and provocative overview and reconsideration of assumptions regarding the experience of American women with higher education. Conway questions whether coeducation was a "liberating experience" for American women and whether access to professional education really made women socially and professionally equal with males.

Early theorists of women's educaiton, such as Franklin and Rush, took a biological view of women as not being made for the liberating, dynamic, creative experience for which the American male was destined. Early in the nineteenth century, domesticity took form as the appropriate role for women, who were expected to function as conscience and moral caretaker, compensating for and tidying up a world made by men. Conway argues that the early coeducational colleges advanced the same compensatory philosophy. At Oberlin, women students laundered the clothes of men students on Mondays, and everywhere it was believed that a woman of conscience was good for a man. The coeducational colleges did not encourage women to break loose and assert their independence, to be openly and fully human. That opportunity was first provided by the struggle with which a number of bold women, such as the Grimke sisters, asserted themselves in the anti-slavery movement.

Not until the founding and development of the new Eastern women's colleges after the Civil War was there a collegiate environment that supported "a collective female life . . . a training for the mind that was not derivative." One result, in the 1890's, was a generation of women reformers so liberated by their college experience that they were unfit for conventional marriage. In fact, approximately 60 to 70 percent of the first generation of graduates of women's colleges remained single.

Regardless of the liberating impulse of the women's colleges, however, sex stereotypes continued, giving support to the development of the so-called "women's service professions" and resting on the traditional notion of a "nurturing female temperament." The women's professions, Conway concludes, channelled women's intellectual energies into "perpetuating women's service role," thus denying to women the liberating, independent, zestful, intellectually adventuresome opportunities available to men. What matters, she says, is not whether women have access to education but whether that education raises their consciousness as intellects.

7:1.0/74-2

The G.I. Bill, the Veterans, and the Colleges, Keith W. Olson, 139 pp. (University Press of Kentucky, Lexington).

Begun as a project funded by the U.S. Office of Education, this account of the origins, operation, and results of Title Two of the Serviceman's Readjustment Act of 1944 places the so-called "G.I. Bill" firmly within the grasp of history. Over 2 million World War II veterans went to college under the benefits of that act, which was inspired by concern about the postwar economy and the behavior of a possible mass of discontented unemployed veterans.

At the time the bill was enacted, the potential of its provisions were not anticipated. It was opposed by the Veterans of Foreign Wars, who feared that so generous a bill would jeopardize benefits for the disabled. Hutchins of Chicago and Conant of Harvard opposed it as inviting an unwelcome and demoralizing lowering of academic standards. Neither the Administration nor the American Council on Education was the driving force behind its creation; that role was played by the American Legion, which found politically attractive the idea of an omnibus bill covering a wide range of benefits, including provisions for mortgages and unemployment. The educational benefits covered fees, tuition, books up to $500 a year, and a monthly subsistence payment of $65 for single and $90 for married veterans. Ninety days of service entitled each veteran to a year's study; in addition, each month of service qualified a veteran for another month of education.

The educational program of the G.I. Bill was a model of public-private cooperation: the Veterans Administration certified the veteran's eligibility, the veteran applied to any accredited institution, and the institution evaluated and either admitted or rejected the applicant. There was no Federal control or supervision. Over 2,000 institutions experienced that heady moment, 1945-1950, when the campuses were dominated by young men who were graduates of depression and war before they were graduates of college.

The author uses the University of Wisconsin as a case study of the impact of the G.I. Bill on higher education, but his study is fleshed out by evidence from elsewhere and by tables that spell out the dimensions of the phenomenon. Some of the unexpected consequences of the act were: the appearance of great numbers of married students; the remarkable institutional growth that it helped to underwrite; the achievement and maturity of what were soon recognized as "the best college students ever"; the beginnings of significant selectivity in admissions based on ability; and the necessity on the part of the colleges, confronted with overwhelming numbers, to operate with smaller faculties and bigger classes. The author concludes that the impact on curriculum was negligible.

7:1.0/74-3

The Academic Melting Pot: Catholics and Jews in American Higher Education, Stephen Steinberg, 183 pp. (McGraw-Hill Book Co., New York).

What happened when two dissimilar immigrant religious groups—Jews (high literacy rate, drawn from industrial environments) and Catholics (low literacy rate, recruited from the European peasantry)—were confronted with an American educational system defined by and for Protestant upper-middle-class native Americans? This question is among those answered in this report prepared for the Carnegie Commission on American Higher Education. The report is part history and part analysis of a 1969 Carnegie survey on faculty and student opinion. In its entirety, it is a thoroughly informed and imaginative monograph that deserved the doctorate from Berkeley that it earned its author.

The report is divided into three sections—a historical section dealing with the experience of Jews and Catholics with American schools and colleges in the late nineteenth and early twentieth centuries; a section on theories that attempt to explain the cultural and social differences and achievements of immigrant groups; and a section on religious trends affecting enrollments, choice of fields of study, and degrees of religious commitment in contemporary higher education. A concluding chapter assesses "The Fact and Fallacy of 'Jewish Intellectualism' and 'Catholic Anti-Intellectualism'."

The historical section deals with what the author rightly calls the "de-Protestanization of higher education." The first chapter is a detailed study of how Harvard in 1920, still controlled by "a complacent ruling class living off past achievements," met the challenge of a "class of talented upstarts . . . resented all the more because . . . Jewish." The almost 20 percent Jewish enrollment at Harvard in 1920 provoked a response that revealed the conflict between "the status interests and the educational functions of the elite colleges."

Catholics' early preference for their own colleges and universities meant that, by the time they chose to invade the old colleges (essentially since World War II), they presented no challenge: by then American Catholics had accommodated themselves to the secular focus of American life, and the elite colleges and universities themselves had been acculturated to diversity by serious, competitive, scholarly Jewish students who simply could no longer be kept out.

Thirty-seven tables graphically support all three sections of the study, including the conclusion that "religion and scholarship tend to be incompatible." There are as yet no definitive answers to the questions that probe the relative importance of cultural baggage and social class in defining the experience of immigrant Jews and Catholics and their descendants with American higher education. But there is no question about whether that experience brought to an end the once "Protestant and elitist character of higher education" in the United States. The consequences of this development are being spelled out in colleges and universities all across the country, but thus far their meaning and significance remain obscure.

7:1.0/74-4

"The New Puritanism: Values and Goals of Freedmen's Education in America," James M. McPherson, in *The University in Society*, Lawrence Stone, ed., II, pp. 611-642 (Princeton University Press, Princeton, N.J.).

James McPherson's is an authoritative, persuasive, scholarly account of the directions that white-dominated education for blacks took in the century after the Civil War. The so-called "missionary era" of black higher education came to an end between 1900 and World War I, but its influences lingered on long after, as Ralph Ellison vividly portrayed in *Invisible Man*.

McPherson focuses on the experience of 29 colleges created in the South expressly for the freedmen and supported in significant fashion by Protestant missionary and educational societies. He finds them overwhelmingly devoted to the inculcation of middle class "puritanical values," advanced by a combination of missionary piety and paternalism. The values that found expression in the curricular arrangements and institutional style of those colleges were the same that were defining white colleges in the North; but for the time, that might not have been an appropriate direction for institutions helping liberated slaves lay claim to their identities and define their aspirations.

The "New Puritanism" appeared, according to the author's investigations, in three guises—guilt and conscience, piety and repression, and the work ethic. All three worked wonders in giving the missionary educators a controlling authority in supervising and advancing the acculturation of the freedmen. The myopic focus on acculturation, however, so neglected the contribution to and enrichment of American culture by black culture that the missionary colleges in fact created a black bourgeoisie with an unstable identity and a weak sense of the folk culture that was their special inheritance.

7:1.0/73

The Separation of College and State: Columbia, Dartmouth, Harvard, and Yale, 1776-1876, John S. Whitehead, 262 pp. (Yale University Press, New Haven, Conn.).

This book examines the relations between colleges and state governments during the first century of American independence, in an era characterized by provincial colleges and a weak and reluctant Federal presence in higher education. Drawing on the experience of Columbia, Dartmouth, Harvard, and Yale, the author demonstrates the closeness of ties between college and state during the first four decades of the period under study, including state representation on college governing boards and significant financial support. The clear distinction between private and public did not exist until mid-century, after the Dartmouth College Case; popular hostility to all higher education and institutional acquiescence in a declining state role defined a new relationship. That acquiescence was made possible by the development of an assertive alumni movement on which the colleges learned to rely as they had once relied on the state.

This study is sound and well-researched with regard to such matters as state support and control and the conflicting purpose of public and private institutions. Whitehead makes abundantly clear that, for a very long time, it was generally understood that all colleges chartered by the state served society by fulfilling a public purpose, and that a reciprocal relationship between state and college supported that purpose. And even as these four old colonial colleges underwent the experience of separation and achieved it by the centennial of the Republic, their "independence" and status as "private" institutions did not abrogate their public purpose nor eliminate government—local, state, and Federal—as a presence in the life of higher education. A book such as this one puts complexity back into our understanding of phenomena and relationships that have been simplified by rhetoric in the service of special causes.

7:1.0/72

Congress and Higher Education in the Nineteenth Century, George N. Rainsford, 156 pp. (University of Tennessee Press, Knoxville).

This book provides a brief but illuminating account of the Federal role in the support of higher education in the nineteenth century. George Rainsford—a graduate of the Yale Law School, holder of a doctorate in history from Stanford, and president of Kalamazoo College—tackles a subject last given a reasonably thorough treatment by Frank W. Blackmar in 1890 (*The History of Federal and State Aid to Higher Education in the United States*). This is a subject that can only grow in importance, and Rainsford's contribution is to provide educators and government officials with a sound sense of the American experience with Federal assistance to higher education.

In nine clearly written and closely argued chapters, Rainsford describes the colonial policies that supported the provincial colleges, considers the failed efforts in the early national period to create a national university, and illuminates the various ways in which Congress fell into using Federal lands and moneys to support higher education. Two appendixes—a list of major educational enactments and an accounting of Federal land grants for higher education—and a bibliography enhance the value of this useful little book.

After establishing what the congressional record of assistance to higher education was("the objectives of the legislation enacted, the kinds of educational programs assisted or established, the recipients or beneficiaries of federal gants, the conditions of the grants, and the resources granted"), Rainsford asks what it all means. And here he may have some surprises for both legislators and educators: Federal support for higher education was only incidentally concerned with education, and while "it is difficult to determine what caused the passage" of any particular legislation, the "educational thrust . . . was to broaden educational opportunity." He concludes that experience proves that "federal assistance does not necessarily establish federal control" and that "Congress is more likely to pass, and the president to sign, legislation if federal aid is tied to, or combined with" noncontroversial social objectives. In the past, as he demonstrates, these objectives have been as diverse as facilitating the sale of public land, aiding in the settlement of new states, cementing the internal unity of the Republican Party, and responding to the demands of such powerful special interest groups as the farmer.

7:1.0/70

American Education: The Colonial Experience, 1607-1783, Lawrence A. Cremin, 688 pp. (Harper & Row, New York).

Somewhat more than one tenth of this book is devoted exclusively to higher education, but that is exactly what the author would argue is a proportion appropriate to a sound understanding of the relationship between the colonial colleges and the entire structure and experience of education in colonial America. The author is a distinguished historian of education and the president of Teachers College, Columbia University. This volume, the first of a projected three-volume history of American education, was sponsored jointly by the American Historical Association and the U.S. Office of Education and was funded by the Carnegie Corporation. The volume begins with the transit of civilization from the Old World to the New and concludes with independence and Thomas Jefferson's efforts to define a new system of education for a democratic republic.

Cremin defines education as "the deliberate, systematic, and sustained effort to transmit or evoke knowledge, attitudes, values, skills and sensibilities." In line with his definition, he has written, essentially, a history of American culture from 1607 to 1783, skillfully placing educational institutions, including the colleges, in a context that includes family, church, publishing, agricultural fairs, newspapers, and other agencies, formal and informal, that have shaped "American thought, character, and sensibility." He is concerned with religion, demography, and science as they impinged on the school, its methods, and its processes, as well as with the relationship between education and national character. Eighteen chapters divided between the 1607-1689 and 1689-1783 periods constitute a book that may provide as fine a way as there is of understanding colonial America.

One chapter places the colleges of the early period in a context of the England that was left behind and the provincial society that sustained them. In the later period, higher education is discussed in relation to religion, curricular concern with utility and careers, colonial political life, and the relationship of the colleges to other social institutions. A 92-page bibliographical essay, of which 15 pages are devoted to higher education, is a special feature.

7:1.0/69

The Education of American Leaders: Comparative Contributions of U.S. Colleges and Universities, George W. Pierson, 261 pp. (Praeger Publishers, New York).

This research monograph, begun as an inquiry into how well Yale graduates did in "life," was for some years a hobby of George Pierson's, carried on while his scholarly attention was focused on explaining American culture and preparing his definitive histories of nineteenth and twentieth century Yale. When the monograph appeared in 1969, it had grown into a large undertaking, replete with tables, broad statistical samplings, and comparative numerical evaluations. It addressed the question: Which colleges and universities have made the largest contribution to "the education . . . of those who later would achieve high public office, professional eminence, careers of unusual distinction, or lives of exceptional originality and social usefulness."

To answer his question, Pierson and his associates examined lists of every conceivable nature: signers of the Declaration of Independence, delegates to the Constitutional Convention, Presidents and Vice Presidents, Cabinet officers, Justices of the Supreme Court, members of the diplomatic corps since World War II, members of the 88th Congress, and leaders in the professions, business, science, arts, letters, and learning.

The results confirmed what had probably been long apparent wherever power was exercised in the United States: almost 20 percent of the men (women? on these lists?) who found themselves eligible for Pierson's study were graduates of Harvard, Yale, or Princeton. Of the next 14 major sources of American leadership, 8 (Columbia, Pennsylvania, Chicago, M.I.T., Dartmouth, N.Y.U., Stanford, and Williams) were private institutions. The leading public institutions were Michigan, finishing in fifth place, California (seventh), Cornell (ninth), Wisconsin (tenth), Minnesota (thirteenth), and Illinois (fourteenth).

What can and should be made of such findings? One suspects that they helped to massage the psyches of the Ivy League East at a time when post-World War II expansion of the state universities suggested that a similar study a hundred years hence might tell a different story. And they certainly certify the nation's indebtedness to the old institutions (5 of the 17 were of Colonial origin) and the strong state universities (6 of the 17) for educating its leaders. But as Pierson himself is quick to point out, his study leaves altogether unanswered the relative importance of college education as compared to "native ability, parental character, inherited money or family connections, and the planned or accidental associations of schooling and growing up."

7:1.0/68

The Academic Revolution, Chirstopher Jencks and David Riesman, 580 pp. (Doubleday & Co., New York).

This collaborative journey into the past, present, and future of American higher education falls outside the specified years covered by this bibliography, and its authors may be dismayed to discover their work under the heading of history. The book's importance, however, requires its inclusion in the bibliography; its authors have a magnificent zest for generalization, and their long romp around the country (visits to 150 campuses) and in the literature is a provocative invitation to think about the relationship between higher education and American society. Probably no other contemporary book on American higher education has inspired so wide a recognition of "the rise to power of the academic profession." As for whether the book is history, of course it is history—history put to work, history informed by sociological insight, history with an eye on the future.

The organization, quantitative investigation, and writing are mainly the work of Jencks; the college visiting and interviewing, of Reisman. Both shared the reading and reflection that further shaped the outcome. The "academic revolution" that concerns the authors is the rise of the university as a central institution in American life, but their imaginations move them everywhere in their investigation of the functions of higher education, its various segments and their different clienteles, and the patterns of diversity and their meaning. They concede that their attempt to arrive at a general theory of the relationship between higher education and social mobility is a failure, but the effort results in profound insights to the changes that moved higher education in the United States from aristocratic to meritocratic values and styles. What are called "special interest" institutions—those serving specific geographical, religious, racial, gender, or vocational clienteles—receive close inspection. But the authors never lose sight of the main theme and argument of their inquiry: "The shape of American higher education is largely a response to the assumptions and demands of the academic profession," not of politicians, philanthropists, businesspersons, trustees, or students. Only in the community college movement and in the romanticism of the general education movement do they locate significant resistance to the academic ethos.

Reading this book is like having a long conversation with two experts who are aware of their own limitations (they admit to bias, to being impressionistic when they would have liked to be specific, to being contradictory) but who are nonetheless magnificent companions with whom to think through the American experience with higher education.

7:1.0/65

The Emergence of the American University, Laurence R. Veysey, 505 pp. (University of Chicago Press, Chicago).

This book, although falling outside the dates specified for this bibliography, is not likely to be soon displaced. Its critical and analytical grasp of the conditions that gave shape to the American university and its sense of the conflicting values and emphases that sought expression within its walls make Laurence Veysey's study a landmark book. Discussion of the modern American university begins here.

The author's concern is the process by which universities rather than colleges began to define the focus and purpose of higher education in the United States. Although there were no universities in the United States before the Civil War, regardless of what they called themselves, by 1900 there were at least a dozen institutions that were lending themselves to a definition of an American-style university that, while incorporating characteristics of both English and continental models, was unique. These 12 institutions—Harvard, Yale, Columbia, Princeton, Johns Hopkins, Clark, Cornell, Michigan, Chicago, Wisconsin, California, and Stanford—and the styles of governance and priorities that shaped them provide Veysey with the materials for his study.

Veysey argues that between 1865 and 1890, disputes, conflicts, and differences of emphasis within the academic community revolved around not simply whether the university would crowd out the college but what kind of university would shoulder the burdens of higher learning in a rapidly growing industrial society. He identifies four warring philosophies that competed for ascendancy in the academy: piety and discipline, utility, research, and liberal culture.

The first of these was more or less abandoned to the colleges, although in older institutions stretching toward university status, the piety-discipline axis had its adherents. Essentially, however, the university in the United States, as nowhere else, chose to accommodate all the philosophies, combining service with research, utility with liberal culture. If by 1890 this accommodation had been reached, thereafter administrators shifted their focus to matters of control, shaping a university structure that could make room for a developing gulf between students and faculty, the rise of administrative bureaucracies, academic hierarchies, and academic freedom. The result is the American university as it is now understood and experienced—a structure that contains and supports scholars, football players, and even its alienated critics. Here is a book that invites the reader to locate herself or himself not only within the academic world but on the spectrum of history.

7:1.0/62

The American College and University: A History, Frederick Rudolph, 516 pp. (Alfred A. Knopf, New York).

This standard reference work, first published in 1962 and since then made available in a Vintage paperback edition, attempts an overview of the history of American higher education in one volume. Although this book has not been revised since its original publication, the author's intentions to provide an understanding of how and why American higher education developed as it did are still fulfilled.

The book is divided into 22 chapters and an epilogue, beginning with the colonial college and ending with an attempt to capture a sense of the upcoming 1960's. Narrative and anecdotal in style, with thematic interpretive analysis, the chapters convey something of the spirit of their origins as a course of lectures in the Harvard Graduate School of Education. The book is essentially important as a synthesis and an indication of the condition of scholarship in the history of higher education. However, it also makes original contributions in its emphasis on the role of the student extracurriculum in defining college and university and in its recognition of the role of state universities and land-grant colleges in certifying old vocations as professions, by recognizing and advancing new formal bodies of knowledge in such fields as agriculture, teaching, mining, and the like.

The chapters follow a chronological scheme in which the following topics are treated: origins and development of colleges in the colonial period; the impact of American Revolution and enlightenment on the colleges; the expansion of colleges; religious life and purpose; the in loco parentis tradition; attempts at reform in the 1820's; the extracurriculum; governance; finance; the impact of Jacksonian democracy; the crisis of confidence of the 1850's; reform; the emerging university; the elective principle; the impact of progressivism on the universities; the rise of football; the professional professors; the bureaucratic institution; curricular reform in the 1920's; and accessibility and diversity as characteristics of American higher education.

Rudolph's interpretation emphasizes the eclipse of the college and the rise of the university, and the process by which higher education has been popularized and democratized. Subsequent scholarship and a new generation of scholars all but guarantee that a new synthesis and interpretation is on its way. But until then, this is a useful volume, with a helpful 20-page bibliographical essay that assesses the literature of the history of American higher education as of 1960.

2.0 INSTITUTIONAL HISTORIES

7:2.0/80-1

The Uncertain Profession: Harvard and the Search for Educational Authority, Arthur G. Powell, 341 pp. (Harvard University Press, Cambridge, Mass.).

Professional historians have paid less attention to the development and growth of professional schools than to any other aspect of university education. Medicine, law, theology, engineering, education—as functions of the American university—generally are treated as essential but mysterious sideshows or accretions to the undergraduate college, out of which university purpose and function have grown. This history of Harvard's experience with the professional education of teachers is literally "the first analytic history of a major school of education."

Powell's book is a case study of how, beginning in 1891, Harvard has defined the legitimacy of education as an academic subject, clarifying its responsibilities to the various roles played by educators in the society, establishing an accommodation between theory and practice, and fashioning a program appropriate to the development of professional educators. An exhaustive use of manuscript and archival materials, at Harvard and elsewhere, has resulted in a revealing account of the troubled and controversial history of the Harvard Graduate School of Education.

Education was first taught at Harvard in 1891 by a young assistant professor of the history and art of teaching. In 1920, with a half million dollar endowment gift from the General Education Board, the Harvard Graduate School of Education was created out of the Division of Education. The apathy and hostility of older academic departments had prevented education from flourishing; but by the second decade of the twentieth century, affluent businessmen-reformers seized upon professional education as an instrument for shaping the American high school into "society's decisive institution for adjusting youth to the urban and industrial world of the twentieth century." Supervised play, vocational guidance, the training of noncollege-educated secondary school teachers, physical education, and even boy scouting were to become concerns of education at Harvard as it sought to achieve both growth and status in the university complex.

Yet tensions and uncertainties bedeviled the new school as it wrestled with how best to fulfill its role, urged on it by wealthy benefactors, as the essential institution for "the maintenance of the social fabric." Powell's account reveals the running battles over definition of purpose and style within the school and within the university, explains the frequent reversals and repudiation of policies, describes the efforts of Harvard to focus on the training of an elite cadre of professional educators, and concludes with an account of the struggles in the 1950's and 1960's to achieve some answer to the question of what criteria—research, instruction, effectiveness in reforming the schools—should determine faculty appointment and promotion.

7:2.0/80-2

The Forging of an Aristocracy: Harvard and the Boston Upper Class, 1800-1870, Ronald Story, 256 pp. (Wesleyan University Press, Middletown, Conn.).

The opportunities and imaginative dimensions of educational history become immediately apparent in this exploration of how Harvard shaped a self-conscious, coherent, urban upper class, was in turn shaped by it, and became an institutional expression and support of that class. In the author's terms, Harvard College, founded as an expression of public support for public needs, was deflected from its traditional cultural role and became "an engine of class," functioning in "the interests of a single increasingly homogeneous and modern constituency."

Shaped by an analysis based in dialectical materialism, the book is intended to clarify the process by which a culture and its supporting institutions are products of economic forces. The author's interest is in the formation of a class; that interest, given the ways in which business and culture flourished in tandem in nineteenth century Boston, led him inescapably to Cambridge and Harvard.

Archival sources and a use of quantitative methods that do not get in the way of the narrative support the author's purposes and conclusions. The transformation of Harvard, from an institution intended to meet the educational needs of the community to one that functioned to provide form and stability to an upper class, is developed in a series of chapters that deal with governance, finance, faculty, social connections, student recruitment, and the creation at Harvard of a class ideal. When, at mid-century, Harvard was challenged by democratic outsiders for its exclusiveness and its failure to meet the needs of aspiring newcomers, both Harvard and the elite it had been serving and creating were shocked into a sense of who they were and what they had been up to. Harvard's relationship to what the author calls "the nation's most entrepreneurial and ambitious metropolitan elite" gave its history a unique twist. Before it became a university, Harvard became an instrument of an upper class, although its founders intended neither.

7:2.0/76

From King's College to Columbia, 1746-1800, David C. Humphrey, 413 pp. (Columbia University Press, New York).

Here, for the first time, the eighteenth century origins of Columbia University are given an extended scholarly examination. Humphrey's study corrects and modifies generalizations about American culture that derive too exclusively from New England and Puritan experience. He develops a convincing sense of what going to college in New York in the decades before the American Revolution was like—its tone, its texture, and the ways in which King's College differed from other colonial colleges. The result is educational history that enriches our understanding of the politics, economics, and social patterns of the age. It illuminates the impact of the college on the political thought of its alumni during the revolutionary years, the separation of church and state, and the beginnings of professional medicine in New York.

Based on printed and manuscript sources, this look at King's College is, on one level, an account of how religious diversity and an urban environment frustrated efforts to make it (and later Columbia) a prototypical American college, denominational and residential in nature. The chartering of King's as an Anglican college proved impossible in pluralistic New York; room was made for dissenting clergy on the governing board. After the Revolution, the residential pattern of student dormitories collided with official priorities, which placed a higher value on intellectual resources than on student residences: Columbia became a college for students who lived off campus. In its interdenomenational character and its rejection of dormitories, the college was less typical of its contemporaries than it was of the directions in which American society was moving.

On another level, Humphrey has succeeded, especially through the cautious but imaginative use of group biographies of students and college governors, in drawing a picture of an institution designed to serve the needs of an economic and social elite, composed of the advantaged professional and merchant classes of New York who were attached to concepts of hierarchical order in society. Half of King's alumni were loyalists; its alumni in the ranks of American patriots were conservative friends of an ordered society—Alexander Hamilton, John Jay, Gouverneur Morris, and Robert E. Livingston. Certain chapters—"Higher Education from an

Elitist Perspective," "The Education of Wise and Good Men," and "The Undergraduate Experience"—are model case studies in educational history.

7:2.0/75

Education and Politics at Harvard, Seymour Martin Lipset and David Riesman, 440 pp. (McGraw-Hill Book Co., New York).

In two essays that share the same cover, two distinguished social scientists try to tell readers why "Harvard is best." Except for their common sponsorship by the Carnegie Commission on Higher Education, the essays are not particularly comfortable together. Lipset's essay, "Political Controversies at Harvard, 1636 to 1974," is a review of the history of intramural and extramural political controversies among the various Harvard estates. Riesman's essay, "Educational Reform at Harvard College: Meritocracy and Its Adversaries," is an impressionistic memoir of his Harvard experiences since entering as a freshman in 1927.

If Lipset's purpose is to come to some understanding of why Harvard has become the world's greatest university, Riesman's purpose is to come to grips with the rise of the meritocratic, as opposed to ascriptive, values in Harvard College and the challenges to them and to the possibilities of the university maintaining its eminence. Both essays fall within a definition of history, although their ultimate value may be as documents of the period when academicians began to take stock of the damage to institutions of the political activism of the 1960's and early 1970's.

Drawing heavily on the work of Morison, Veysey, Hawkins, Bailyn, and others, Lipset explains Harvard's eminence as deriving from a combination of developments that include, most importantly: "from 1700 on . . its close link to the elite of a relatively cosmopolitan wealthy community that combined the Puritan-inspired commitment to education and scholarship with the tolerance for diversity and new ideas needed for intellectual creativity"; and, from 1869 to 1909, the presidency of Charles W. Eliot, who systematically and single-mindedly transformed Harvard "from a college primarily concerned with training youth to one dedicated to creative scholarship."

Riesman's essay is sprinkled with delightful bemusings on the Harvard he has known, but he is not misled by his bemusings. His sense of Harvard's future is apocalyptic, in contrast to the optimistic cyclical theory that emerges from Lipset's essay. Even so, while Lipset believes that 1968-69, the year of the Harvard Yard bust and the capitulation of the faculty to the black student caucus, was "the most momentous year in the University's history since Eliot took office," Riesman is ready to acknowledge that "an institution, like an individual, can continue to live with a lot of ruin within the system."

7:2.0/74-1

Yale: A History, Brooks Mather Kelley, 588 pp. (Yale University Press, New Haven, Conn.).

If young colleges and universities need centennial histories, just imagine what Yale needs. Since 1936, Harvard has had Samuel Eliot Morison's *Three Centuries of Harvard 1636-1936*. Thomas Jefferson Wertenbaker solved most of Princeton's problem in 1946 with *Princeton 1746-1896*. William and Mary's history will never receive a satisfactory telling: all the early records went up in flames. At last, however, with Brooks Mather Kelley's brave venture, Yale has a one-volume general history.*

Kelley has divided Yale's past into six periods: 1701 to 1739, the critical years when the college was wandering around the Connecticut countryside looking for reliable friends; 1740 to 1795, a period of influence in the sectarian life of Connecticut, where it was essentially the official college of the official religion; 1795 to 1871, almost a century of national influence, defining curricular purity and exporting the message of liberal learning to the barbaric West; 1871 to 1921, a frightening 50 years of stagnation when Yale lost its preeminence to Harvard and fell into an orgy of extracurricular indulgence; 1921 to 1950, a period when Yale resolved the tensions between a commitment to the college and its aspirations as a university (it decided to do both and succeeded); and 1950 to 1963, the recent past, when Yale no longer needed to apologize for its former backwardness and, indeed, did not.

Students, the college, Yale as a community rather than as the arrogant "best"—all this has defined Yale and made its history something quite different from Harvard's. Kelley knows Yale well enough to be sensitive to the difference. No more than is appropriate or necessary, he organizes his history around the remarkably long incumbencies of Yale's famous presidents—Ezra Stiles, the first Timothy Dwight, Jeremiah Day, Theodore Dwight Woolsey, Noah Porter, Timothy Dwight the younger, Arthur Twining Hadley, and James Rowland Angell—eight presidents in 160 years (1777 to 1937).

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*Books such as Kelley's and the others referred to do not make any money for anyone. They seldom pay for themselves in any traditional sense of payment, but they are as necessary to a college or university's health and sense of identity as is the Bible to Christianity. Moreover, given the maturity of American academic history and the availability of scholars of the quality of Brooks Mather Kelley, institutional histories no longer need be maudlin appeals to graduate memories. In fact, they had better not be.

7:2.0/74-2

The University of Kansas: A History, Clifford S. Griffin, 808 pp. (University Press of Kansas, Lawrence).

Few universities have been as well served by their centennial historians as has the University of Kansas in this model case study of a university in the process of becoming an *American* university. Beginning in 1866 as "a preparatory school for a nonexistent college," the University of Kansas, in Clifford Griffin's words, has developed into "an institution of learning with aspects so diverse, often so antagonistic, as to beggar description." Not so. Griffin is in no way intimidated by either the diversities or the antagonisms, and the result is a lively portrait of how that preparatory school, in 100 years, became a college and nine professional schools with an enrollment of 15,000 and a faculty of 1,000.

Griffin explores the tensions that emerged as the University sought to define and express its identity—between humanistic and technical training, academic excellence and athletic success, absolutists and relativisits, learning and play. Griffin concludes that, for 100 years, Kansas has been engaged in an argument over "what the school should do and what it should be," receiving conflicting directions and signals from the national academic community, the American people, and the citizenry of Kansas. He does not mislead the reader into believing that, in some triumph of institutional wizardry, the University was always in possession of itself: there were times when it was in possession of inertia and sheer size.

In chapters that reveal a sound and comfortable understanding of the fabric of the University, Griffin deals with student life, curricular developments, the extracurriculum, faculty, important academic freedom cases, and the expansion of the institution's commitment to graduate education. Because this is a history of a state university, it is also a history of state politics and of the policies and mechanisms with which the University established its usefulness to the state. And because it is a history of the University of Kansas, it is an account of how one institution encouraged a kind of continuing debate over purpose and identity as a fruitful source of self-study and direction.

7:2.0/73

School of the Prophets: Yale College, 1701-1740, Richard Warch, 339 pp. (Yale University Press, New Haven, Conn.).

The author of this history of early Yale, which began as his doctoral dissertation in American studies at Yale, is the president of Lawrence University in Appleton, Wisconsin. Richard Warch's interest in colonial Yale apparently did not disqualify him for the presidency of a midwestern college, and it may in fact have sufficiently immersed him in the intellectual, social, and religious dimensions of an eighteenth century college as to prepare him for the complex and subtle and sensitive demands of college leadership in the twentieth century. In other words, a college or university president cannot know enough about the past, and this study of how Yale managed to survive its first 40 years is an important contribution to such an understanding.

Reading this study is an experience in realizing how long we have had to wait for historical studies that take education seriously and that place the performance of colleges and universities into a setting that once was thought limited to politics and war. Because of Warch's research, the Yale of over two centuries ago is thoroughly alive.

A central concern of this book is the impact of new imported learning on the capacity of Yale to turn out, as if on order, "learned and orthodox" clergymen and civil leaders. The trouble with a powerful and stubborn elite, faced with the challenge of ideas that have intruded on the quiet and ordered preserve of certainty and authority, is that it often behaves as if it is beyond learning. Warch's history explores the ways in which Yale found out that, while ideas and thought could be accommodated, they could not be resisted. He also sheds new light on those old relationships among college, church, and state that have an unending history.

7:2.0/72

Black Mountain: An Exploration in Community, Martin Duberman, 578 pp. (E.P. Dutton, New York).

Community and innovation are concepts loosely tossed about by academic leaders: they are very much in favor of both, seldom admitting how little they do to support either and hardly aware of how difficult it is to live in an institution where both community and innovation are supported. Black Mountain College, a remarkable moment in American educational history, was a community and it was an experiment. It lasted 23 years (1933 to 1956).

A leading historian who has established his reputation in biography and in literary and diplomatic history, Martin Duberman has ventured into the archives of an extinct institution and, with significant assistance from its survivors, has pieced together an account of the experimental community in the foothills of North Carolina known as Black Mountain. In addition, choosing to make this work itself an experiment in historical writing, he has chosen to reveal himself even as he reveals Black Mountain. If the college has secrets to tell, so does Duberman: This is *not* scientific history pretending to lack a point-of-view, experience, and a history of its own. The result is instructive and fascinating.

Black Mountain's vitality and importance derived from the coming together of an explosive community of artists and intellectuals, some of them teachers, some of them students, none disposed to act out roles considered appropriate in a traditional college: John Cage, Merce

Cunningham, Buckminster Fuller, Josef Albers, Paul Goodman, and Robert Rauschenberg. These and others managed to create a unique definition of what an American college might be, and Duberman manages to keep us constantly reminded of the demands that community can impose on a college that rejects tradition, structure, order, and discipline. Black Mountain, in its utopian and communal aspects, unintentionally echoed the beginning of Harvard and Yale, at the same time that it anticipated the communes of the counterculture of the 1960's and 1970's. Duberman neither weeps nor condemns, but he does embrace both Black Mountain and his readers as he succeeds in bringing them together. There has been no other college just like Black Mountain, and Duberman has given it an appropriate epitaph. Is it a warning to those who would seek community, to those who experiment? Or to those who would not?

7:2.0/70-1

The Distinctive College: Antioch, Reed and Swarthmore, Burton P. Clark, 280 pp. (Aldine, Chicago).

Burton Clark is a sociologist with a sense of history, and this study, supported by grants by the Carnegie Corporation to the Center for the Study of Higher Education at Berkeley, is a fine blending of both disciplines. As a sociologist, Clark is concerned with "the fate of culture—values, norms, knowledge—at the hands of social conditions and social structures." He is interested in the importance of organizations in sustaining culture and values, and in the present study he has used the histories of three liberal arts colleges to help him locate and define "the organizational saga"—the history and legend—on which each has hung its mission and fulfilled its potential as a liberal arts college.

For Clark, "the private liberal arts college is *the* romantic element in our educational system," because of its historical primacy, its public affection, and its peculiarly American form of organization. While the worst of the private liberal arts colleges may be narrow and mean-spirited, the best of them, Clark contends, set the pace of quality in undergraduate education in the United States and thus play a significant role in "the fate of culture."

In case studies that carry the histories of Antioch, Reed, and Swarthmore Colleges to approximately 1960, Clark has asked how a college goes about making itself first rank and keeping itself there. In the early 1950's, his three colleges were among the top 10 in the United States in producing scholars and scientists. What Clark has done is to search into their pasts for the origins of their present orientation, sought out the role of innovative leaders, identified the components that had to be manipulated to create and sustain innovation, and assessed the strains of achieving a fixed character.

While strong-willed, charismatic leadership played a role in the development of a distinctive style at all three institutions, Clark reminds us that "organizations have a number of weapons against charismatically inclined individuals." Moreover, William J. Foster at Antioch seized the opportunity of a new college, Arthur E. Morgan at Reed revolutionized an old but foundering college, and Frank Aydelotte at Swarthmore provided a nondisruptive but distinctive evolutionary push at a quiet Quaker college.

Clark concludes that innovations survived and became "permanent" and legendary at all three institutions because of five factors: the commitment and authority of core personnel, especially the senior faculty; the distinctiveness of the curriculum and the teaching style; a strong external social base that supplied students, money, and philosophic support; a talented and committed student body; and the shaping of an institutional ideology and identity, which Clark suggests is located in "statue and sidewalk, story and song."

7:2.0/70-2

Economics at Harvard, Seymour Harris, 519 pp. (McGraw-Hill Book Co., New York).

Unique in the literature of the history of higher education, this volume by the Harvard economist Seymour Harris is a detailed, fully documented, analytical, and statistical study of the economics of 333 years of Harvard. Yet his focus is not narrowly economic: his interest and his purpose wander from the books in the treasurer's office to students, faculty, administration, discipline, management, land, growth, and expansion as they impinge on and define the economics of the institution.

This is an imaginative and remarkable undertaking, surely not without error, given its appetite for grasping and squeezing for meaning in every possible aspect of Harvard's economic life: the socioeconomic and geographical origins of students, room and board, tuition, financial aid, faculty salaries, tenure, faculty-student ratio, productivity, rate of promotion, comparative cost structure, investment policies, land use policy, fundraising.

A summary condensation of the book comes at the beginning: without notes and tables, for almost 50 pages it presents the main argument and conclusions. The rest of the book not only spells it all out but also is something of a mine in which others will dig for years to come.

Harris's review of Harvard's economic history supports the work of others who have stressed the dependence of early Harvard on government support. Harris documents a return to that dependence in recent years. He also concludes that as the university grew and enlarged its purpose—strengthening its curriculum, adding professional schools, cutting the grass—it increased its expenditures without increasing its productivity. In other words, it got better by becoming more expensive or, if one prefers, it became more expensive by getting better. In either case, it has had to learn to live with a pattern of economic behavior that distinguishes it from ordinary corporate enterprise.

7:2.0/68

The Cornell Campus: A History of Its Planning and Development, Kermit C. Parsons, 336 pp. (Cornell University Press, Ithaca, N.Y.).

Except for Thomas Jefferson's architectural plans for the University of Virginia, very little of a scholarly nature has been done on the planning and development of the college and university campus in the United States. This book is a model exception, a distinguished and fascinating account of the making of a great and beautiful university campus. The author, who at the time the book was published was chair of the Department of City and Regional Planning in Cornell's College of Architecture, knows his subject and is master of its intricacies. This is no dull recital of buildings come and gone; it is a description, analysis, and case study of how men create, live in, and use an environment peculiar to an American university.

The opening of Cornell in 1868 as the great prototype of the American land-grant university was an event of far-reaching significance; its founders respected their own visions and built with an eye to the future. If Ezra Cornell held his planners and architects to a style that acknowledged the pragmatic emphasis of the Cornell course of study, Andrew D. White played an essential role in capturing for the new university a spirit of aesthetic concern and romanticism. For 52 years, as president and trustee, White insisted that Cornell be beautiful. And Frederick Law Olmsted persistently and successfully impressed upon the university a planner's preference for flexibility and an adaptability to centuries of growth. Kermit Parsons tells the history of Cornell's first century through an informed and sympathetic discussion of buildings, architectural styles, and vistas; almost 50 pages of documents and over 200 illustrations are integral to his account.

One chapter on "Cottages and Villas" deals with the Ithaca homes of faculty and benefactors. Another on the building of Cornell's great library—which might have been subtitled "How the Establishment Builds a Library"—is a remarkably revealing account of how universities fell into bad building habits and great buildings. The dynamic growth of the College of Agriculture under Liberty Hyde Bailey becomes an inquiry into a declining sense of style and design.

There are glimpses here of a fundamental indecisiveness and ambiguity at Cornell on a policy for student housing: Cornell never made up its mind where it really wanted its students, young men or women, to sleep. The fraternity houses that crowded faculty off the campus in the late nineteenth century, the clumsy beginnings of on-campus housing for women, the post-World War II effort to overcome almost a century of confusion—these are matters of significance not only for campus design but also for the tone and style of university life.

3.0 ADMISSIONS, ARTICULATION, SECONDARY SCHOOLING

7:3.0/79

The Half-Opened Door: Discrimination and Admissions at Harvard, Yale, and Princeton, 1900-1970, Marcia Graham Synnott, 310 pp. (Greenwood Press, Westport, Conn.).

This is a remarkable pathbreaking book, a work of history that, as Arthur S. Link remarks in his foreword, would have been impossible 25 years ago. The mere existence of Synnott's study documents a revolution in college admissions and in the history of anti-Semitism in American higher education. Hers is a bold undertaking: a thorough, painstakingly researched, detailed account of how Harvard, Yale, and Princeton established quotas for Jewish students and, from the 1920's to the late 1940's, preserved themselves as bastions of a white Anglo-Saxon Protestant elite, and of how, in subsequent decades, these elite universities were transformed by a number of interacting developments into increasingly diverse and pluralistic institutions. It is difficult to think of any work of scholarship, fair and detached as it is, that exposes so much dirty linen—and with the complete cooperation of those who wore it.

Synnott subjects each of the "Big Three" to close inspection and finds that, while each moved toward effective discrimination against Jewish applicants in its own style (Harvard under its president A. Lawrence Lowell, Yale under the urging of its faculty and students, Princeton at the insistence of its governing board), all succeeded in arriving at what was thought to be a comfortable policy of denying access to qualified Jews. (Of course, where applicable, the policy also restricted entry by blacks, Catholics, and other minorities considered unlikely candidates for the elite positions for which these universities prepared.)

There are villains and heroes in this story, as well as lessons for students of the relationships between society and institutions of higher learning. Harvard, Yale, and Princeton were able to carry out their policy of discrimination at a time when they were dependent on the financial support of a snobbish elite and when they were uncertain of themselves as primarily intellectual (as contrasted to social) institutions. The changes in society that transfromed the universities in the 1950's and 1960's were complex, uninvited, and insistent, giving all three an opportunity to demonstrate their vitality or their resistance to dynamic social change. Synnott's narrative and analyses are supported by a series of tables that demonstrate the diligence of her research and authenticate her conclusions.

7:3.0/77

The Qualified Student: A History of Selective College Admission in America, Harold S. Wechsler, 341 pp. (John Wiley & Sons, New York).

Prepared originally as a doctoral dissertation, this study of the history of selectivity in college admissions is a fascinating and welcome corrective to much that is legendary and apocryphal in the lore of college enrollments. Harold Wechsler is interested in the role of higher education as an agency of certification, an instrument for awarding the credentials that provide access to economic and social mobility in a meritocratic society. The methods and criteria of student selection are more important today than they were in the nineteenth century, when a majority of the age group did not go to college and the rest essentially went wherever they wanted to.

In 1870, the University of Michigan moved from what Wechsler describes as a passive policy of admitting whoever applied to an active policy of certifying the high schools from which it would admit graduates, thus setting "a precedent for the positive use of admissions policies to facilitate the selection of students destined to play a leadership role in twentieth century America." Michigan and the midwestern and western state universities that followed its lead developed the certificate system as a means of encouraging public high schools as a source of students and as a means of competing with small private colleges having their own preparatory departments. In the East, Columbia and Harvard provided leadership in using the College Entrance Examination Board (C.E.E.B.) as an instrument for standardizing entrance requirements and liberalizing the list of acceptable college preparatory subjects. Their purpose was to use admissions policies for creating universities and for providing an education that was both liberal and professional.

The certificate system and the C.E.E.B. did not, however, create selectivity in college admissions. By 1910, it was apparent that the Michigan approach was certifying too many academically unqualified students and that the examinations of the C.E.E.B. were qualifying too many socially unqualified Jewish students. After World War I, Columbia met *its* admission problem by announcing a policy of selective admissions. Others followed, but because the colleges were not operating with a large pool of applicants, selectivity did not mean accepting the best qualified, it meant keeping out Jews. Declining enrollments and the illusion of selectivity characterized college admissions in the 1930's, when personality reports, personal interviews, and preference for children of graduates or members of particular religious denominations allowed admissions officers to keep some applicants out without actually improving the quality of those it admitted. In 1930, the University of Minnesota confronted *its* problem of too many unqualified but certified high school graduates by creating its General College, which welcomed the unqualified along with the qualified.

Wechsler has divided his book into four case studies, based on good use of the archives of his model institutions: the University of Michigan (certification), Columbia (anti-Semitism), the University of Chicago (graduate emphases, limiting enrollment in order to encourage applications), and the City University of New York (open admissions, twentieth century egalitarianism). The burdens of admissions policies are large; in a society in transition from elite to mass higher education, they direct the traffic, regulate access to opportunity, and determine who gets which credentials.

7:3.0/76

Education in the United States: An Interpretive History, Robert L. Church and Michael W. Sedlak, 489 pp. (Free Press, New York).

The theme that informs this one-volume interpretive history of American education is the tension that has enabled the schools to be instruments of both democracy and social inequality, of both social control and individual liberation. Drawing on the quantitative studies of a new generation of scholars, the authors concentrate on "the varying commitment among Americans to 'mass schooling' and equality of education."

They begin in the early decades of the nineteenth century with the common school movement, and end with a consideration of "changing definitions of equality of educational opportunity, 1960-1975." As an introduction to their main themes, they consider the early manifestations of republican education—the district school and the antebellum college and academy (1776 to 1830). They see the period 1830 to 1860 as a "quest for commonality," defined by the common school and the search for a new pedagogy, and followed by a long retreat (1840 to 1920) from efforts to fulfill the equalitarian aspirations of an earlier day. In a series of chapters headed "Retreat from Commonality," they consider the failure of the common schools in both the South and the North, the rise of vocational and manual education as class education, and the function of the university in training an elite leadership class.

Church and Sedlak keep clear the distinctions between progressive education and educational reform in the Progressive era, focusing on the development of the high school, the kindergarten movement, and reaction and reform in schools and colleges between the World Wars, 1918 to 1940. The reaction against progressivism after World War II and the meaning of *Brown v. Board of Education of Topeka* and other developments for educational opportunity share the focus of their concluding section.

While the book concentrates its attention on the school, "because it stands as society's most deliberate mode of educating its young and thus becomes the primary institution through which social groups attempt to use educational efforts to influence American society," it also clarifies the relationships between the schools and higher education and the varying degrees of success with which articulation has defined those relationships.

7:3.0/74

The One Best System: A History of American Urban Education, David B. Tyack, 353 pp. (Harvard University Press, Cambridge, Mass.).

In the 1960's and 1970's, the history of schooling in America captured the attention of the graduate schools and of a new generation of scholars. These scholars have focused on the relationship between the schools and society, and they have raised probing questions about the intentions and the functions of schools and about the tensions between the aspirations of students and their families and the goals of society. Among other things, they have tested myth against performance, questioned the role of the schools as social and economic elevators, and measured the success of the schools in meeting the needs and desires of both rich and poor.

While the particular works of these scholars are not appropriate for inclusion in a bibliography of higher education, certain studies that incorporate and synthesize their findings in broad interpretations and accounts of American education should be of value to practitioners of higher education. One such work is David Tyack's history of American urban education, although it is somewhat misleadingly titled: the book does not ignore rural education and it does not include higher education. It does, however, draw on the work of Carl Kaestle, Michael B. Katz, Edward A. Krug, Marvin Lazerson, Diane Ravitch, Theodore R. Sizer, and Selwyn K. Troen, as well as on the author's own investigations into the history of schooling in America.

4.0 STUDENTS

7:4.0/77

The Rights of Youth: American Colleges and Student Revolt, 1798-1815, Steven J. Novak, 218 pp. (Harvard University Press, Cambridge, Mass.).

Here is an adventuresome book that moves into unexplored territory with a fine combination of imagination and caution. Between 1798 and 1815, American colleges were characterized by widespread student revolt—rebellions, gross disorder, and insubordination. In these revolts and in the official response to them, Steven Novak has located a post-Revolutionary generation of students busy establishing their identity in an environment shaped by republican principles but also informed by an academic tradition poorly equipped to concede the "rights of boys."

The students, who resented the arrogance of their academic elders, were expressing a generational self-consciousness in their riots as well as in their ultranationalistic response to the quasi-war with France in 1798. The authorities, however, mistook the romanticism and coming of age of the "Sons of the Founders" as somehow being an aspect of an international atheist/anarchist conspiracy. Their overreaction unfairly smeared the students, but the consequences for the colleges were equally far-reaching: blacklists of troublemakers, tightened discipline, the ascendancy of evangelical religion, and the stifling of efforts to move the curriculum to a more utilitarian and elective basis. Novak, furthermore, makes a convincing case for attributing the strengthened hold of the classics in the early nineteenth century to official reaction to student disorder.

Available sources are wisely used, intuition comes to the assistance of inert facts, and there are numerous marvelous vignettes, such as those of Timothy Dwight's Yale as the epitome of evangelical education, Jefferson's University of Virginia as the last gasp of republican education, and the origins of the Dartmouth College Case as an argument over religious and academic style.

This book represents an important new line of historical inquiry—the role and experience of students, a long neglected subject that came alive in the 1960's and that can be expected to inspire rewarding studies for many years to come.

7:4.0/75

Paupers and Scholars: The Transformation of Student Life in Nineteenth Century New England, David F. Allmendinger, Jr., 160 pp. (St. Martin's Press, New York).

A great deal more work will have to be done before the transformation of student life for which David Allmendinger argues in this monograph is completely convincing, but his essay is informative, imaginative, and suggestive of the explorations into quantitative history being undertaken by a younger generation of scholars. In its focus on students it is also compensating for a long tradition of scholarly neglect.

Allmendinger's concern is the incidence and experience of poor students at New England colleges during the first 60 years of the nineteenth century, the role of benevolence in supporting them, and the role of poverty in shaping their lives and the nature of the collegiate community. He makes use of manuscript materials at Amherst, Bowdoin, Dartmouth, Harvard, Middlebury, Vermont, and Yale (but not Brown, Colby, and Williams) and the records of the American Education Society (1815-1874) to advance the thesis that the high percentage of students "too poor to pay," who "had to take charity or support themselves with their own work," created "a new kind of student life" in the nineteenth century colleges. Allmendinger sees this new kind of life as being defined by a wider range of student ages, increasing maturity, cheaper tuition, the widespread practice of supporting oneself in college by teaching in the district schools, and the benevolence of the extramural education societies.

The result is a perceptive interpretation of "the organizational revolution that took place in American schooling during the last century. It deals with the politics of education: who got what, where, when and how. . . . It attempts to assess how the schools shaped and were shaped by the transformation of the United States into an urban industrial nation." The author addresses himself to the experience of those he calls "in some sense" the "victims" of urban education, the poor and dispossessed; he illuminates the "transformation from village school to urban system," and he shows how the school curriculum became a bridge between family and society. He concludes that "schools have rarely taught the children of the poor effectively—and this failure has been systematic, not idiosyncratic," and that "urban schools did not create the injustices of American urban life, although they had a systematic part in perpetuating them."

The book contributes not only to educational history, but also to the history of politics, bureaucratization, corporate organization, and "Americanization."

7:3.0/70

American Boarding Schools: A Historical Study, James McLachlan, 381 pp. (Scribner's, New York).

Graduates of American boys' boarding schools have had an influence on American life that is out of proportion to their number: In 1941, *Who's Who in America* had a place for 1 out of every 19 alumni of St. Paul's School, founded in 1855 in Concord, N.H., destined to become the model boarding school. In this study, developed from a doctoral dissertation, James McLachlan undertakes a bold foray into a past when schools were being founded for training an elite, assuring the soundness of its values, and readying the sons of the wealthy for attendance at the right universities and colleges. McLachlan's focus in this book is the schools, not the universities and colleges, but there are aspects and periods of higher education, particularly at the old prestigious Eastern institutions, that can only be understood in reference to the boarding school movement.

McLachlan makes clear that while the boys' boarding school erupted in an explosive way in the 1880's, it built on over a half century of American experience, including that of the Phillips Academies at Andover and Exeter, George Bancroft's experimental Round Hill School in Northampton, and the Flushing Institute in New York. By the time Groton was founded in 1884, St. Paul's had been in operation for almost 30 years, long enough to make clear what a boys' boarding school was all about. By making extensive use of school archives and incorporating insights from his knowledge of the American family, religion, city, and childhood, the author demonstrates as has not been done before exactly what that was. In the first place, the boys' boarding school was for the sons of rich Americans: tuition at these schools in 1904 was greater than the annual wages of two-thirds of the male workers in the United States. The schools attended to a variety of purposes, but none more important than the prevention of aristocratic attitudes: the boys' boarding school taught such middle class values as self-control and frugality in personal style; the intended product was a conservative gentleman.

As the movement grew and more schools were founded, other purposes found expression: taming the nouveau riche, providing a safe and isolated environment for the nurture of innocence, providing an environment appropriate for refining the offspring of wealthy small town families, fulfilling the aspirations of the rich for their sons, and meeting the needs of the universities and colleges for properly prepared applicants.

The focus of McLachlan's study is the nineteenth century origins and proliferation of the boys' boarding school. He does not, given his focus, differentiate between the purposes of the schools and their functions, but he does draw attention to the fears held by the schools that the Ivy League universities—with their undemocratic social systems, overemphasis on grades and intellect, and disinterested professors—would undo all their own good work in training a right-minded class of gentlemen.

Allmendinger concludes that over a quarter of the students in the pre-Civil War colleges were "too poor to pay," and he provides striking evidence of the significant contribution of the American Education Society to their support: In 1835, this philanthropic arm of the Congregational churches provided $55,213 for 1,040 students; in 1838, one out of every seven New England college students was a beneficiary of the Society's patronage. It is clear what the Society was up to: the steady production of Congregational ministers, assuring a bulwark against Catholicism, maintaining the idea of a college education as a necessary preparation for the ministry. But what was the meaning for the colleges?

Allmendinger believes that a diminished role on the part of the colleges in supporting poor students "entailed a significant loss of power over the student population," a condition that was furthered by the degree to which the frugality of poor students led them into rooming and boarding arrangements beyond the authority of the colleges. In addition, in responding to the needs of poor students, colleges found themselves introducing economies in room and board that were objectionable to wealthier students. Social divisions were created and fostered, and the college community itself became so fragmented as to introduce a "crisis of disorder" that led to the replacement of the *in loco parentis* tradition by a bureaucracy.

"Slowly, cumulatively," he argues, "a transformation of great magnitude began to take place. Hereafter, order would be imposed through a student's daily academic performance—and discipline through the influence of his own family. Scholarship would become a competitive activity and discipline an internalized matter of self-control and family watchfulness. The intellectual life on the student was transformed, and the modern system of discipline was born." Allmendinger's investigations into who was poor and who was not is too frail a structure on which to rear such weighty conclusions, but they move us in the right direction with great imagination and promise.

7:4.0/74-1

Student Politics in America: A Historical Analysis, Philip G. Altbach, 249 pp. (McGraw-Hill Book Co., New York).

If there are any doubts about whether events shape the historical imagination, Philip Altbach's history of organized student activism should erase them. His analysis of "student organizations and movements devoted to politics and social concern" is a pioneer work. And while his emphasis on liberal and radical rather than conservative activism may at first seem to be a function of bias, the historical record supports his focus: Generally, when students registered their discontent with the national political and economic environment, their purpose was to move the country to the left.

Altbach gives attention to the eighteenth and nineteenth centuries, but his essential concern is with the twentieth century, especially the past 50 years. His conclusion that student political and social activism has never enjoyed a majority interest (the anti-war movement of the 1960's and 1970's was spotty and ephemeral, even if of lasting impact on its survivors) and that it has been "generally ineffectual" in American university life helps to explain why his book is an exploration of uncharted territory.

In contrast with other countries, where students have constituted a threat to the stability of the political system, the history of student activism in the United States is a tale of much sound and fury, taken seriously in most instances only by the activists themselves. Why?

Altbach, whose research was supported by a grant from the National Endowment for the Humanities, attributes the lack of success of student activism to five major causes: the diversity, size, and complexity of what is mistakenly called the "system" of higher education in the United States; the absence of a sense of community among college and university students, for whom higher education is an adventure in defining and nurturing the ego; the lack of any tradition of political activism, Alexander Hamilton's activities as a King's College enemy of the King to the contrary; a political system so complex and well-developed that events are already subject to a multiplicity of powerful and often conflicting influences; and the absence among American college and university students of any sense of elite status and consciousness, elsewhere a powerful impetus to political activism.

The author organizes his investigations around chapters that deal with the period 1900 to 1930, the 1930's, post World War II, the 1950's, and the New Left. He identifies three strains of activism—liberal/radical, religious, and conservative—and he concludes that, historically, foreign affairs and matters of war and peace have had greater appeal in engaging students in political activism than either civil rights or civil liberties. In an appendix he lists and classifies student organizations concerned with social and political action: they include SDS as well as the YM-YWCA.

7:4.0/74-2

"American Colleges and the Transmission of Culture: The Case of the Mugwumps," James McLachlan, in *The Hofstadter Aegis: A Memorial,* Stanley Elkins and Eric McKitrick, eds., pp. 184-206 (Alfred A. Knopf, New York).

James McLachlan breaks new ground in this bold and imaginative inquiry into the influence of their college experience on the thought and action of that late nineteenth century generation of college-educated civic reformers known as "Mugwumps." Basing his study on the careers of a random sample of 185 Mugwumps drawn from the Liberal Republicans of 1872, the civil service reform and free trade movements, and the Independent Republicans of 1884, the author locates "a style of thought, a mode of discourse, the emerging outlines of a particular social and intellectual world view" and accounts for its acquisition in youth and its expression in maturity.

The Mugwump was a contemporary of the robber baron and the machine politician, but of the three, he was the one who had gone to college, essentially in the years between 1845 and 1875 and largely at Harvard, Yale, and other institutions cast in the New England mode. The Mugwump belonged to the last generation educated at the old-time college. He was a product of a curriculum and an environment that stressed moral philosophy, applied ethics, virtue, and duty. The Mugwump was an expression of Protestant conscience and elite pretension; his failure both in government and in the academy was in a sense a judgment on the classical college, one more announcement of the perennial battle between God and Mammon for the soul of man.

In this brief essay, McLachlan does not allow himself to say more than his research permits, but his excursion into a clearly defined moment when the classroom found explicit expression in the body politic is also a remarkably illuminating look at the role of the college in nineteenth century America.

7:4.0/74-3

"The Choice of Hercules: American Student Societies in the Early 19th Century," James McLachlan, in *The University in Society*, Lawrence Stone, ed., Vol. II, pp. 449-494 (Princeton University Press, Princeton, N.J.).

Here is a fascinating inquiry, complete with illustrations and iconography, into the decision of the American Whig Society, a student literary society at Princeton, in 1819 to imprint on the diplomas that it awarded to its members a representation of the *Choice of Hercules*. This rendering by the American artist Thomas Sully shows Hercules at the Parting of the Ways, choosing between the path of Pleasure/Vice and Virtue. The students' choice of this classical icon, says McLachlan, was "extraordinarily revealing of their intellectual world, their aspirations, and the nature of the American college and culture early in the 19th century."

McLachlan's essay is an important contribution to the historiography of student life, using the Princeton group as an opportunity to provide a case study in the enterprise, intellectual interests, and life of students. The Whig Society not only provided diplomas for its members that directed them to the path of Virtue. Some of its members held positions in the Society as subject matter professors; the Society literally conducted a curriculum for its members in the *belles lettres* tradition that lay outside the range of official Princeton. In supporting libraries, debates, reports, and journals, the Whig Society and its counterparts elsewhere were not only engaging in activities appropriate to their tastes and energies nor simply enlarging on the official curriculum with an extracurriculum. McLachlan argues convincingly that the activities of the American Whig Society should not be seen as "extra" but as an integral part—along with the official curriculum—of "a total educational process that was intellectually solid, rigorous, broad in scope, and surprisingly well tailored to the character and interests of the individual student."

The student societies had the support and approval of college officials, and therefore their activities were not construed by the authorities as frivolous or unimportant. In stressing how the student societies meshed with and complemented the classical curriculum and the prevailing moral emphasis of the colleges (even to joining Hercules in choosing Virtue), McLachlan provides a corrective for that narrow estimate of the nineteenth century college that sees only generations of students trapped in a classical course of study that ignored their interests and capacities.

7:4.0/73

SDS, Kirkpatrick Sale, 752 pp. (Random House, New York).

What would have happened if American journalism had been sufficiently advanced in 1774 for someone to write a lengthy study of the radical left at King's College, with special emphasis on that most conspicuous student radical, Alexander Hamilton? We'll never know. In the meantime, Kirkpatrick Sale, a free lance writer with a sound sense of history, has not allowed the 1960's to fade into forgetfulness without recording and analyzing "the rise and development of the Students for a Democratic Society, the organization that became the major expression of the American left in the sixties—its passage from student protest to institutional resistance to revolutionary activism, and its ultimate impact on American politics and life."

This is a history based on 3 years of research, access to the SDS archives, and a consideration of the leaders who shaped an organization that may some day be seen as the instrument that politicized American higher education. Tom Hayden, Rennie Davis, Carl Oglesby, Carl Davidson, and Mark Rudd are among the major actors; but all across the country, college and university campuses responded to the insistent SDS message that American institutions were no longer fulfilling the promise of American life. Civil rights sit-ins, the 1964 Berkeley protest, antiwar marches on Washington, the 1967 assault on the Pentagon, explosive campus disruptions at Columbia, Wisconsin, and Harvard, and the almost universal campus dismay and demonstrations after the invasion of Cambodia and the killings at Kent State—these are the events around which SDS created its role and influence.

To what extent SDS was a response to curricular and institutional inadequacies is not answered by this book, nor does it make a convincing case for the myth it may indeed be perpetuating—that SDS was "chiefly responsible for most of the reforms in campus curricular and living conditions." Even so, here is a book that has succeeded in catching and revealing an important moment in the history of higher education: the decade of the 1960's, which, whether divided into the author's periods (reorganization, reform, resistance, revolution) or defined in some other way, was nonetheless a remarkably instructive era for anyone who would understand the past, deal with the present, or anticipate the future.

The book is organized chronologically, by seasons, like the academic calendar, and includes as appendixes thanks to both J. Edgar Hoover and Mark Rudd, a list of organizations involved in the student movement of the 1960's, a list of SDS officers and membership statistics for 1960 to 1970, and a brief history of leftist student activity from 1905 to 1960.

5.0 CURRICULUM

7:5.0/80

"The Teaching of Ethics in the American Undergraduate Curriculum, 1876-1976," Douglas Sloan, in *Education and Values*, Douglas Sloan, ed., pp. 191-254 (Teachers College Press, New York).

This essay on the career of ethics in the undergraduate curriculum appears in a book consisting of contributions by scientists, philosophers, theologians, and historians to what was originally a special issue of *Teachers College Record* (1979). The inspiration for the volume was a common interest in the connection between values and knowledge, with the stated intention of "reestablishing imagination, insight, intuition, and human values where they belong, at the heart of reason."

The burden of Douglas Sloans' contribution is to show how and why ethical concern fell out of favor as a curricular purpose. In the traditional classical college of the first half of the nineteenth century, the capstone course in moral philosophy served three purposes: the promotion of intellectual and curricular harmony; the accommodation of new subject matter—especially that which eventuated as social science; and the formation and support of moral character among the undergraduates. Ethics were served up in ways that encouraged a common set of values, a philosophic basis for those values, and common standards of individual conduct.

The fragmentation of knowledge and the insistent appearance of new courses reduced the role of the moral philosophy course, but even in the developing universities at the end of the century, the ethical concern of the early social scientists and the reforming zeal of many of the new professors compensated for the decline of the old capstone course. In the end, however, scientific resarch and the rise of "value-free" objective social science won out. Sloan takes an especially close look at what happened to psychology and sociology as they were drained of ethical content and focus, and even to philosophy, where ethics fought for recognition as an elective, competing with other philosophical concerns as well as with the entire exploding course of study.

By 1965, the author concludes, the isolation of ethics in the curriculum was exacerbated by the emphasis, in the teaching of ethics, on analysis and theory, to the neglect of practical ethical considerations. The real enemies, however, were the splintering of knowledge and the ascendancy of scientific method as the favored mode of knowledge.

See: 24:2.1/77 **Curriculum: A History of the American Undergraduate Course of Study Since 1636,** Frederick Rudolph.

Prepared for the Carnegie Council on Policy Studies in Higher Education, this is the first book-length effort to encompass the history of the

American college and university curriculum since the slender volume in 1907 by Louis Franklin Snow, *The College Curriculum in the United States*. The chapters in Rudolph's work provide a chronological development of the undergraduate course of study, emphasizing the relationship between what was happening in the classroom and in the society at large. Although Rudolph does not attempt to cover the intellectual developments that changed the content and style of the various academic disciplines, he shows how the growth of knowledge and the professionalization of the faculty manifested themselves in the curriculum.

He begins his study with a consideration of the inherited English curriculum with which the colonial colleges attempted to fulfill their obligations to tradition—a compound of the medieval liberal arts, gentlemanly concern with humanistic ideals, and the Reformation focus on religion. This inherited curriculum was soon subjected to the influence of "New Learning," the unleashing of scientific and experimental inquiry on a scale that henceforth would make the curriculum permanently unsettled. A notable effort to rationalize the college course of study and to provide it with an aura of certainty and authority was a report issued by the Yale faculty in 1828 describing and defending, course by course, what it considered to be the essential curriculum. The Yale report established the model classical curriculum for the middle decades of the nineteenth century, but it could not withstand the demands for a more utilitarian education and for colleges more accessible to those who aspired to careers outside the old professions.

After the Civil War—under the influence of an exploding scientific knowledge, the research orientation of the German universities, and the successful launching of Cornell (which promised to teach everything to everyone)—the required authoritative undergraduate curriculum as envisioned by the Yale faculty was rapidly eroded. One instrument of that erosion was the elective principle, which Charles W. Eliot applied to the Harvard course of study as a means of transforming the college into a university. In reaction to the curricular disarray and uncertainty introduced by election, the concentration and distribution movement in the twentieth century has attempted to give an element of stability to the college course of study.

The author concludes that, whatever certainty and authority there may once have been in the curriculum, it has become a repository of "conflicting purposes and contradictory educational philosophies" held together by "a body of standard practices and expectations and a sophisticated bureaucracy." It is obvious that the author is a friend of liberal learning, but he does not hide his belief that the time has long since passed when a faculty can define a required basic college course appropriate for everyone.

7:5.0/75

Science and the Ante-Bellum American College, Stanley M. Guralnick, 227 pp. (American Philosophical Society, Philadelphia).

Stanley Guralnick has written a book that withdraws considerable authority from the ignorance and arrogance that have described the early nineteenth century college as a marathon with prayers and Plato. His study is a belated corrective to the widespread notion among the unread educated that science in higher education awaited the explosive growth of universities in the post-Civil War period.

Responding to European scientific advances, expressing a somewhat nationalistic sense of the need to invigorate American institutions, looking for ways to increase their attractiveness to their potential clientele, colleges in the early decades of the nineteenth century asked themselves: What do we do? New York University imagined itself as a university and failed. R.P.I. became scientific and vocational, but postponed becoming a college. Almost everywhere else, the bachelor of arts program made room for increasing segments of mathematical and scientific understanding, even sooner than there were textbooks available to accommodate widespread desire.

The evidence is overwhelming: the endowment of professorships in science, support for new scientific equipment and trips to Europe for professors authorized to buy it, the 10-fold increase in the number of science professors employed in higher education (1828-1860), the intrusion of chemistry, geology, mineralogy, and botany into a curriculum that was totally unaware of them before the American Revolution.

Guralnick has explored the archives, the printed resources, even the old and tired scientific equipment of 15 colleges in the Northeast that produced a majority of the country's pre-Civil War college graduates (Amherst, Bowdoin, Brown, Columbia, Dartmouth, Dickinson, Harvard, Middlebury, Pennsylvania, Princeton, Union, Vermont, Wesleyan, Williams, Yale). He has subjected himself to a laborious but rewarding chronological understanding of the difference between college mathematics in 1820 and in 1860, and in all the years in between. He has followed the careers of mathematics, physics, astronomy, and chemistry in the liberal arts course. Whatever else he may have found, there can be no dispute about whether the pre-Civil War college comfortably embraced classical learning and science and recognized a responsibility to define scientific literacy as one of the qualities of an educated person.

7:5.0/73

"Stability and Experiment in the American Undergraduate Curriculum," Laurence Veysey, in *Content and Context: Essays on College Education,* Carl Kaysen, ed., pp. 1-63 (McGraw-Hill Book Co., New York).

The volume in which Laurence Veysey's essay appears was sponsored by the Carnegie Commission on Higher Education. His is the only essay in the collection that is primarily historical. He provides, in effect as an introduction to the diverse essays that follow, a succinct account of curricular change and movement, the impulses to common patterns and diversity. He considers the challenge of the university to the old classical course, the developing service and utilitarian orientation of the curriculum, and the role of the genteel tradition in defining the function of liberal learning.

Among the topics covered are the major subject system, concentration and distribution, and interdisciplinary courses. He describes the three poles that "define the intrinsic limits of the curriculum," as being depth/breadth, election/prescription, and abundance/scarcity of courses. The tone of this brief but perceptive survey is informed by judgments such as this one: "It may be seriously argued...that the paperback revolution of the 1950's did far more to improve academic quality in this country...than any curricular innovation of the last 70 years."

7:5.0/71-1

"Harmony, Chaos, and Consensus: The American College Curriculum," Douglas Sloan, *Teachers College Record,* Vol. 73 pp. 221-251.

This brief but imaginative assessment of the present and future of the college curriculum, informed by historical perspective, takes the form of an essay review of the historical literature. That the curriculum is in trouble is never news, but efforts to explain the trouble are as diverse as they are frequent. Is the democratization of higher education filling the colleges with resentful students so little inclined toward study that no curriculum can satisfy? Is the orientation of the graduate schools toward academic disciplines and research enveloping the colleges in a standard homogeneous course of study hostile to diversity and imagination? Such questions occur when the history of the curriculum is passed in review.

Sloan argues that in the heyday of the small liberal arts college in the early nineteenth century, the burden of education was widely shared with theological schools, medical schools, academies, technical institutes, adult extension, lyceums, and the like. Later the university incorporated this loose fabric of educational institutions, including the college, into a consensus that entitles the university to do and to be all things. The harmony of the old college, where revivalism was curricular and science and religion were compatible, was succeeded by a chaos of conflicting demands and opportunities, creating tensions between revivalistic and rational religion, basic and applied science, genteel and popular culture.

His review of the literature and of the past leads Sloan to suggest that the university consensus may be breaking up, may be subject to more universality of access and more social discord than it can bear. What will take its place is of course uncertain, but Sloan seems to point to greater flexibility and diversity, less sameness of orientation, even a return to some of the focus on teaching, the quality of student life, collegiality, character, and moral ends that gave the old colleges a sense of harmony.

7:5.0/71-2

The Scottish Englightenment and the American College Ideal, Douglas Sloan, 298 pp. (Teachers College Press, New York).

English and German influences in shaping American higher education have long been recognized, but until in this study by Douglas Sloan, the impact of Scottish universities on American colonial colleges has been largely ignored or misunderstood. Sloan makes it abundantly clear that much of the intellectual excitement of the late eighteenth century colleges owed its inspiration to Scottish universities, which were the embodiment of Englightnment thought in Scotland, and to a band of Presbyterian ministers, many educated in Scottish universities, who founded academies and colleges in the middle and southern colonies.

American academic life in the eighteenth century was invigorated by the belief in the power of education to reshape society and by a curriculum increasingly receptive to new developments in science, philosophy, and teaching methods. Much of the inspiration for this vigor derived from the Presbyterian academy movement, American students who attended Scottish universities for medical training, and the Scottish and Scotch-Irish immigration. Its most notable representatives were John Witherspoon, Benjamin Rush, and Samuel Stanhope Smith, and its most important institutional expression was the College of New Jersey (Princeton).

Sloan's study is organized around seven chapters: one on the Scottish universities, one on the Presbyterian academies in America, four on important American exponents of Scottish influence, and one on the Scottish impact on the American college curriculum. These chapters conclusively support Sloan's contention that there existed "a genuine trans-Atlantic community that extended from beyond the Susquehanna to the Thames—and, in education, to the Firth of Forth and above the River Tay." An appendix lists the American Presbyterian Academies, 1740 to 1795.

6.0 BIOGRAPHY AND AUTOBIOGRAPHY

7:6.0/79

Howard Mumford Jones: An Autobiography, Howard Mumford Jones, 292 pp. (University of Wisconsin Press, Madison).

Howard Mumford Jones, emeritus professor of humanities at Harvard, critic, and literary historian, has in this autobiography quite unintentionally written something of a comparative history of American higher education as experienced by a sensitive humanist and a perceptive observer. Jones attended LaCrosse State Teachers College in Wisconsin before attending and receiving his B.A. degree from the University of Wisconsin in 1915. The next year he received an M.A. in English from the University of Chicago, and from then on threw himself into the professorial life on the academic frontier (University of Texas 1916-17, 1919-25; University of Montana, 1917); in the South (University of North Carolina, 1925-30); in the Midwest (University of Michigan, 1930-36); and in New England (Harvard, 1936-62).

Political influence on the university in Texas and corporate influence on higher education in Montana defined his early academic experiences. But perhaps nothing was more memorable than the refusal of the University of Chicago, having accepted his doctoral dissertation, to examine him for the degree because he had not taken enough courses. (He got nowhere by pointing out that, for a number of years, he had been teaching courses of similar caliber in the University of Chicago summer term.) Jones refused to take the courses demanded of him, never received the Ph.D. degree (certainly he earned it), and was awarded a prize of the American Historical Association when the dissertation was published as *America and French Culture: 1750-1848* in 1927.

Jones has had a knack for being at the right places at the right times—Wisconsin under Van Hise and Birge, Chapel Hill during its era of "intellectual and cultural renaissance," and Harvard during the decades when its preeminence was unclouded and Jones himself could be misled into asking in this autobiography, "Take the Harvard 'elite' out of the history of America, and tell me, what have you left?"

Jones' importance as a scholar rests on his interpretation of American culture as the result of "the slow adaptation of Old World assumptions to a New World setting . . . the adaptation of European man to a new environment physical, emotional, and intellectual." His autobiography is in part an account of how he staked out a place for himself as an historian of American cultural development, emphasizing, as he did in his dissertation and in many of his more than 30 books, the role of imported cultural influences. Jones cares about writing, which is another way of saying that he also cares about reading.

7:6.0/74

Josiah Quincy 1772-1864: The Last Federalist, Robert A. McCaughey, 264 pp. (Harvard University Press, Cambridge, Mass.).

Josiah Quincy prepared for his years as Harvard's 15th president (1829-1845) by being the quintessential Brahmin—an anti-Jacksonian member of Congress, mayor of Boston, and developer of what became known as the Quincy Market. While only a quarter of this biography is devoted to his Harvard presidency, the two chapters convey a vital sense of a provincial college attempting to come to terms with and accommodate urgent change. Quincy, says McCaughey, transformed Harvard "from a mismanaged, ill-disciplined high school" to a groping but conscious prototype of a university-in-process a quarter century before Charles William Eliot seized the opportunity that Quincy in part prepared.

Ten years before Quincy assumed the Harvard presidency, there had been an expectation that the young Americans who had gone off to study in Germany would return and invigorate the intellectual life of Harvard. But under President John Thornton Kirkland, those prospects turned sour, undergraduate indolence and disorder took over, reform failed. In selecting Quincy to succeed Kirkland, the Harvard Corporation was consciously rejecting both scholarly and clerical qualifications: it wanted an administrator, some one who could govern. What they got was an astute elitist who was trying to be functional in a society that was becoming insistently equalitarian. Upon his appointment, Quincy took off from Boston for a 5-week tour of eastern colleges.

Quincy's administration was notable for his success in putting down a student rebellion in 1834, although, as McCaughey points out, henceforth Harvard presidents would have to govern without the love of undergraduates. But what distinguished his tenure were the policies that took the college from "the brink of despair [to] . . . the threshold of greatness": a standardized grading system, a consistent discipline policy, invigorating faculty appointments, optional studies, sectioning by ability and interest in mathematics, a greatly augmented scholarship fund. His proposal that entrance requirements be stiffened was defeated, and an experimental graduate program in classical philology was allowed to expire, but "by 1843 virtually all courses beyond the freshman year at Harvard were optional."

Quincy rejected the open-enrollment trade school model proposed by critics of Harvard in the legislature, and instead responded to the aspirations of those members of his faculty who argued that the time had come for Harvard to ready itself for the university that lay within its potential. His retirement was followed by a reaction that was not repudiated until the reforming era of Charles William Eliot.

7:6.0/73

Frederick Jackson Turner: Historian, Scholar, Teacher, Ray Allen Billington, 599 pp. (Oxford University Press, New York).

Frederick Jackson Turner's thesis on "The Significance of the Frontier in American History" was the first great interpretive idea offered by an American historian for synthesizing the country's past. Advanced at a meeting of the American Historical Association in Chicago in 1893, it for many years dominated the interpretation and understanding of the American past. Now in disfavor, it has had no replacement: American history is today lacking a widely acceptable synthesis. Turner's biographer and former student, Ray Allen Billington, argues that for all of its commanding importance, the frontier thesis was not Turner's greatest contribution. That designation he assigns to Turner's role as an innovator in the use of demographic techniques and interdisciplinary investigations.

Billington's biography is about a scholar who made notable contributions, in his frontier and sectional interpretations, to shaping American history, but his focus is Turner's life as a college professor, those qualities—"his way of life, his ambitions, his hopes and frustrations"—that made his life in many ways typical of thousands of other college and university professors. It is a portrait of respectable poverty, defined by interrupted work, frustrating demands on his time, failure, the trivia of administration, and classroom preparation.

Arriving on the University of Wisconsin faculty in 1889 with a brand new doctorate from Johns Hopkins in the offing, Turner established himself as a prototypical academic man, soon learning how to use the renown that followed the gradual acceptance of the frontier thesis to build his own position and to strengthen his department at Wisconsin. Billington remarks that, "to lure Turner from the University of Wisconsin was the ambition of many an administrator," just as "to stay at Wisconsin while benefiting from the bidding for his services was Turner's." In Billington's view, Turner was "the premier graduate instructor of his generation," an originator of exciting new ideas who emphasized the importance of broad knowledge and experience, joined in the undertakings of his students as a fellow explorer, asking questions but never answering them.

In 1906, a politically inspired investigation of the University attacked its commitment to scholarship and research, citing Turner's half-time teaching arrangement as evidence of misdirected energy and purpose. In 1910, Turner accepted an appointment at Harvard, offered by A. Lawrence Lowell at the urging of Charles Homer Haskins of the History department and with the assurance that Archibald Cary Coolidge, another colleague in history, would guarantee Turner's salary of $5,000 for five years.

Turner was never completely comfortable at Harvard, but both there and at Wisconsin, although producing only two books, his focus on multiple causation and on the complex origins—social, economic, anthropological, and psychological—of human behavior had the effect of prodding the historical profession "into a far more sophisticated technique of historical analysis." In the meantime, as Billington's biography superbly demonstrates, Turner lived a professor's life.

7:6.0/72-1

Between Harvard and America: The Educational Leadership of Charles W. Eliot, Hugh Hawkins, 404 pp. (Oxford University Press, New York).

The development of the American university has been the focus of the scholarship of Hugh Hawkins, professor of history and of American studies at Amherst. His 1960 study of the beginnings of Johns Hopkins (*Pioneer: A History of the Johns Hopkins University, 1874-1889)* provided him with a depth and understanding that enhances this definitive exploration of Harvard's coming of age as a university under the leadership of Charles W. Eliot, president from 1869 to 1909 and something of a public oracle from the time of his retirement until his death in 1926.

Eliot was a determined and resourceful president whose life was in many ways defined by the provincial college that he dragged, shoved, and led to prominence in the university movement. Ancestors had populated the governing boards, his father was treasurer of the college, he knew the place, but he also understood the needs of the United States for great universities responsive to the needs of a democratic and industrial society. Hawkins shows how Eliot fashioned Harvard into such a university, confronting and ameliorating the tensions between science and religion, intellect and democracy, and culture and utility. The issues in which these tensions were imbedded included the elective curriculum, admissions policy, secondary school reform, strengthening of the professional schools, and the clarification of university purpose at the expense of collegiate identity.

Hawkins accomplishes two purposes in this book: an account and analysis of how Harvard moved beyond its history as a provincial New England college to become a national university, and a study of academic leadership. Eliot's 40 years as Harvard's president provide him with a remarkable opportunity that he has admirably met.

7:6.0/72-2

G. Stanley Hall: The Psychologist As Prophet, Dorothy Ross, 482 pp. (University of Chicago Press, Chicago).

G. Stanley Hall was "one of the leading figures in American scientific and intellectual life" in the closing decades of the nineteenth century and the first decade of the twentieth century. As one of the first scientific psychologists, he created, with William James, the academic discipline. He fostered the child study movement that found expression in the work of his students

Arnold Gesell and Lewis M. Terman. He was the founding president of Clark University. He formulated the modern concept of adolescence. In the crowning achievement of his career, in 1909 he brought Freud and Jung to Clark, giving "Freud his first academic recognition anywhere in the world."

Dorothy Ross's definitive biography illuminates not only the development of the university movement but also the emerging discipline of psychology and the struggle of the late Victorian era to accommodate religion and science. Hall, after graduating from Williams College, went off to Union Theological Seminary as, his biographer relates, was appropriate for "a young man of philosophical interests and slender means." But in 1869, the support of a private benefactor gave him the opportunity to study in Germany, an experience that was followed by graduate study at Harvard with James, further study in Germany, and eventually his appointment to the chair in psychology and pedagogy at Johns Hopkins.

A biography of G. Stanley Hall requires a new telling of the Clark University story, a tale of flawed benefactor, flawed presidential leadership, and a debilitating struggle over whether Clark was to emphasize collegiate or graduate purpose. The new university opened in 1889, Hall at the helm, without an undergraduate college and with a faculty of 18 and a promising group of 34 graduate students. Hall envisioned the University as a source of trained specialists, an elite corps of experts, but this was a concept that enlisted the support neither of Jonas Clark, the founding benefactor, nor the Worcester community. Seizing the opportunity created by the developing tension, William Rainey Harper, putting together the new University of Chicago, walked off with a third of the faculty and student body in the spring of 1892; as many went elsewhere. Clark University never fulfilled the early promise that Hall held out for it, but it *was* the site of the great 1909 conference that brought Freud to the United States.

7:6.0/71

Eliphalet Nott, Codman Hislop, 680 pp. (Wesleyan University Press, Middletown, Conn.).

Eliphalet Nott—minister, orator, educator, inventor, promoter, speculator—was president of Union College from 1804 to 1866. He lived one of those lives that reveal the essence of nineteenth century America: optimism, money, moral ambiguity, wreckless speculation, imagination, daring. His biographer salutes him with the judgment: "Probably not more than a half-dozen other college presidents in the history of this country can be said to have done so much so quickly with so little initial advantage." Nott also may have achieved the longest tenure of any American college president. The thought of a tenure so long is staggering, but Nott put it to good use.

Nott moved Union from inconsequence to academic leadership, identifying it with innovations in elective courses and in scientific and engineering programs. His senior course in moral philosophy was one of those on which lesser presidents and colleges patterned their own. In 1813, he employed the French architect Joseph Jacques Ramee to provide Union with an integrated campus design, one of the few such plans in the history of American higher education.

In 1815, Union offered a parallel course with a senior year devoted exclusively to science. In 1828, its parallel scientific course allowed students to choose between ancient and modern languages, abstract and applied science. In giving the B.A. degree for both the traditional and parallel programs, Union scandalized its critics; but of the attempted curricular reforms of the troubled 1820's, those at Union were alone in being a spectacular success. It alone created a curriculum that neither damaged the intentions of the old curriculum nor denigrated the legitimacy of the new subjects.

The public responded favorably. Enrollment merrily increased, surpassing Harvard, Yale, and Princeton by 1830. In 1861, Union's graduating class was the third largest in the country. By the time Nott had been president for 40 years, 30 of his former students, including Francis Wayland of Brown, had carried the Union style elsewhere as college presidents.

Nott was autocratic and devious; he certainly stayed in office after he had outworn his usefulness, but at Union he created an institution where ambitious young men could train themselves for a practical role in nineteenth century life in a moral environment presided over by one of the century's truly representative men.

7:6.0/70-1

Frank Aydelotte of Swarthmore, Frances Blanshard, 429 pp. (Wesleyan University Press, Middletown, Conn.).

The thrust of American higher education has been so much in the direction of equality and numbers that it is remarkable that a biography can be written about an important figure whose focus was quality and excellence. For 35 years, Frank Aydelotte built a career around stimulating the best to do their best. In this account of his life, written by a former colleague and completed after her death by her husband (the philosopher Bland Blanshard), Aydelotte becomes one of the legitimate heroes of American academic history.

A graduate of Indiana University, Aydelotte was greatly influenced by his experience as a Rhodes Scholar at Oxford, where he recognized the university's commitment to "humane and liberal values, fostered by small residential colleges where students were treated as individuals and as adults" and subjected to rigorous intellectual experience and equally rigorous examination. At Indiana University, where he first taught, his

English courses were experiences in how to think. As president of Swarthmore College, 1921 to 1939, he took an inferior college and made it the equal of its prestigious neighbors, Haverford and Bryn Mawr, by developing an honors program that captured some of the spirit of Oxford and introduced into American higher education the distinction between a pass and an honors degree. His career in the nurture of quality encompassed his role as American Secretary to the Rhodes Trustees, adviser in the creation and awarding of Guggenheim Fellowships, and planner and director of the Institute for Advanced Study. At one time he maintained three offices, one at Swarthmore, one for his Rhodes responsibilities, and another for the Guggenheim Fellowships. His success was built out of a finely tuned combination of precise planning, enthusiasm, and energy.

Somewhat more than a third of Mrs. Blanshard's study is devoted to the Swarthmore years, but the whole is an uncommon account of an uncommon man intent on establishing, maintaining, and rewarding standards of excellence in the intellectual life of the United States.

7:6.0/70-2

Five Counter-Revolutionists in Higher Education, Michael R. Harris, 224 pp. (Oregon State University Press, Corvallis).

Michael Harris had a fascinating idea, and he carries it out with skill in this little book: Why not look at the ideas and careers of five important critics of American higher education whose writings and scoldings made them extremely visible during the years between World War I and World War II? These "backward-looking romantics," as W.H. Cowley describes them in a foreword, were reacting against the professional, useful emphasis that developed in undergraduate education between 1870 and 1900. Hostile to the service function of the university, they rejected research, vocational preparation, extension, and the concept of professors as consultants—the whole range of policies and activities with which institutions of higher education went about developing "the ability of students to play useful roles in society" and producing and communicating useful knowledge. Four of Harris's five counterrevolutionists would have none of it; one would eliminate the collegiate altogether.

Harris begins his study with a chapter on the University of Wisconsin, using it for a case study of the rise of a university of operational utility. Then there is a chapter that introduces his counterrevolutionists, followed by individual chapters on each of the five critics: Irving Babbitt, advocate of humanistic standards for an elite student body, who hoisted the banner of the New Humanists at Harvard; Albert Jay Nock, who used his editorship of *The Freeman* to advance the cause of character as the purpose of higher education; Abraham Flexner, unhappy with the intrusion of collegiate values into the university, who would get rid of everything but research and did just that as founder of the Institute for Advanced Study; Robert Maynard Hutchins,

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friend of great books and Aristotelian metaphysics, who identified the University of Chicago with his outlook; and Alexander Meiklejohn, advocate of the use of great books to develop social intelligence, who was given an opportunity to try his ideas at the Experimental College of the University of Wisconsin.

Harris' critics had little in common except their opposition to the American college and university as they found it and their pessimism. Their ideas were not contagious; their exhortations fell largely on deaf ears. Perhaps the one other respect in which they were united was in the relatively slight impact they had on the general shape and tone of American higher education. Harris provides bibliographies of the five.

7:6.0/67

Woodrow Wilson: The Academic Years, Henry Wilkinson Bragdon, 519 pp. (Harvard University Press, Cambridge, Mass.).

Twenty-eight years of research and over 150 interviews went into this full and not completely digested account of the academic career of Woodrow Wilson, who became president of the United States in 1913 at the age of 56, after 3 years' political experience and a long career as an academician. Son of a college professor, Wilson attended Davidson College in North Carolina for a year before attending Princeton, from which he was graduated in 1879. A year at the University of Virginia Law School qualified him to practice law for a few years before entering Johns Hopkins, which awarded him the Ph.D. degree in 1886. He taught political history at Bryn Mawr, Wesleyan, and Johns Hopkins before joining the Princeton faculty in 1890 as professor of jurisprudence and political economy.

Wilson's appointment at Princeton occurred at a time when a struggle was developing between conservative Presbyterian forces and a group of liberal alumni intent on moving Princeton from its collegiate orientation to university status. At the time Princeton appeared to be devoted to prolonging the adolescence of privileged Presbyterians in an environment that could only be described as a big country college. Wilson's election to the presidency of Princeton in 1902, the first layman in the institution's history, was a victory of the alumni over the church, but Wilson was no academic radical.

His fascination with football as an experience in struggle and organization blinded him to its faults and perversions. He was opposed to coeducation, women's education, electives, and the encouragement of scientific study. While at Bryn Mawr he wrote in his diary: "Lecturing to young women of the present generation on the history and principles of politics is about as appropriate and profitable as would be lecturing to stone masons on the evolution of fashion in dress." When he arrived at Wesleyan he wrote: "I have long been hungry for a class of men."

As president of Princeton, Wilson established himself as a conservative reformer, proving himself more hospitable to science than earlier statements had promised, encouraging the shaping of academic departments, moving Princeton in the direction of solving problems created by the conflicting demands of general education and specialization, and regenerating the faculty. His most notable innovation was his corps of young preceptors, instructors barely older than the undergraduates who functioned in a friendly tutorial manner, their essential purpose being to make intellectual activity both respectable and exciting. Wilson misjudged the opposition and overestimated his own political astuteness and powers of persuasion when he engaged the undergraduates and alumni in a battle over the social and intellectual deficiencies of the Princeton eating clubs, and the dean of the graduate college and the board of trustees over plans for the location and style of a proposed new graduate facility. Like other studies of Woodrow Wilson, Bragdon's account of his academic years is a study of flawed leadership.

7.0 LEARNING AND SCHOLARSHIP

7:7.0/80

A City and Its Universities: Public Policy in Chicago, 1892-1919, Steven J. Diner, 263 pp. (University of North Carolina Press, Chapel Hill).

What difference does a university make to a great city? One resounding answer emerges from this study of the years between the opening of the University of Chicago in 1892 and the defeat of one of its professors for mayor in 1919. In between, the University made all the difference in the world to the city of Chicago.

In its early years, there developed at the University of Chicago—and to a lesser degree at nearby Northwestern—a self-conscious faculty of academic professionals and experts who established themselves as the source of authority for solutions to the problems of modern urban industrial society. With the support of urban reformers and men of good will in the business community, the professors were caught up in Chicago's determination to be both an expression of democracy at its best and of "culture" as well. They pressed solutions in education, criminal justice, social welfare, and municipal administration. The roster included Albion W. Small, Charles E. Merriam, John Dewey, George Herbert Mead, Ernst Freund, Sophonisba Breckenridge, and Edith Abbott. Their supporters in the community included McCormicks, Cranes, Rosenwalds, and others.

The author views historically and sympathetically the developments that Thorstein Veblen deplored in *The Higher Learning in America*—the connection between the University and the life of the city that Veblen considered a corruption of learning. On the other hand, Diner provides a sort of historical exoneration in a series of chapters on how professors went about creating alliances and contributing to the solution of specific problems. They were neither corrupted nor always successful; indeed, the defeat of Merriam for mayor in 1919 suggested that although the reformers might know best, the political machines were able to keep the loyalty and support of the great mass of voters who the professors and their elite colleagues were championing.

This particular moment in the history of the American university was made possible by the coming together at the same time of academic professionalization, the appearance of universities, explosive urban problems, and rationalizing bureaucracies. The professors shaped "modern mechanisms of public policy" as expressions of urban reform, and when they were rebuffed by the successes of urban political machines, they and their adherents increasingly looked to Washington as an appropriate arena for action. In the meantime, however, out of the experiences of the Chicago professors and their colleagues elsewhere came "the rise of public administration, urban and regional planning, and administrative law," not just as academic subjects but as vital ways of conducting public life.

7:7.0/79-1

The Rise of American Philosophy: Cambridge, Massachusetts 1860-1930, Bruce Kuklick, 674 pp. (Yale University Press, New Haven, Conn.)

This study of the history of philosophy at Harvard is much more than its title suggests. It is true that a report of a committee of the Board of Overseers found philosophy to be moribund at Harvard in 1860 and that a book on *Contemporary American Philosophy* published in 1930 was dominated by Harvard, but this is more than an account of philosophy triumphant in Cambridge. During the 70 years covered by this investigation, American philosophy achieved significance and pragmatism was given definition as a coherent and ordered philosophy. And where this was happening was Harvard.

In "synthesizing the thought of fifteen philosophers with the history of an institution," Kuklick has focused on the relationship between the philosophers—among them Charles Pierce, William James, Josiah Royce, George Santayana, Alfred North Whitehead, and C.I. Lewis—and their academic affiliation. Harvard, he finds, provided a shaping environment for their thought. His own attempt to understand their ideas leads him into the society that nurtured them and the men who espoused them.

The result is a remarkable adventure in intellectual history, educational history, and the history of professionalization. The book is divided into five sections: a consideration of the period of amateurs and theological crisis that culminated in the eclipse of traditional intellectual and moral philosophy, the impact of Darwin, and the emergence of Charles Sanders Pierce; the years 1869 to 1889; the years 1890 to 1912, both of these eras belonging to what the author called the "Golden Age"; the years 1912 to 1920, a period of crisis; and, finally, the triumph of professional philosophy, the transition from philosophers to philosophy professors, and the structuring of a world of teachers and students.

"The history of philosophy in Cambridge from the Civil War to the Great Depression," the author concludes, "illuminates the history of American thought as a whole: *it* is a history of Harvard writ large. Moreover, the story of the professionalization of philosophy at Harvard epitomizes the professionalization of the academy in twentieth-century America." The appendixes include a list of recipients of the Harvard doctorate in philosophy between 1878 and 1930.

7:7.0/79-2

The Organization of Knowledge in Modern America, 1860-1920, Alexandra Oleson and John Voss, eds., 478 pp. (Johns Hopkins University Press, Baltimore, Md.).

Nineteen contributors, most of them historians, were invited by the American Academy of Arts and Sciences to focus their expertise on various aspects of the developments that created, in the years under review, an "expanding network of national organizations for the advancement of specialized knowledge." In the words of the editors, "these essays illuminate the interacting forces that brought the American order of learning into existence at a critical time in the development of knowledge and American society." This volume presents a series of close inspections of how Americans concerned with nurturing thought moved beyond regionally isolated learned societies (the subject of an earlier Academy project: *The Pursuit of Knowledge in the Early American Republic: American Scientific and Learned Societies from Colonial Times to the Civil War)* and created the organizational structure that, while its contributions to knowledge were vastly overshadowed in significance by those of Europe, would in the decades after 1920 move the United States into "a position of eminence in the intellectual world." This latter development will be the subject of a third volume.

The essays in the 1860-1920 volume consist largely of case studies of various academic disciplines, applied fields, and institutions. And while they soundly document the key roles of the rise of the university in the organizational complex that creates, promotes, and sustains learning, the essays as a whole clarify the integral role of such government agencies as the Department of Agriculture, the U.S. Geological Survey, and the Library of Congress; private philanthropy in its various manifestations—museums, specialized libraries, foundations; such industrial firms as General Electric, Westinghouse, and DuPont; and the national associations of specialists that federated in 1919 to become the American Council of Learned Societies.

Most of the essays are provocative and clarifying, seldom definitive but always suggestive and imaginative. Among the contributors are John

Higham on "The Matrix of Specialization," Edward Shils on "The Ascendancy of the University," Laurence Veysey on "The Plural Organized Worlds of the Humanities," Hugh Hawkins on "University Identity: The Teaching and Research Functions." There are essays on the social sciences, the physical sciences, and biology, as well as on the Carnegie Institution of Washington and the National Academy of Sciences.

7:7.0/78

Americans and German Scholarship, 1770-1870, Carl Diehl, 194 pp. (Yale University Press, New Haven, Conn.).

In the nineteenth century, between 9,000 and 10,000 Americans studied in German universities, with profound impact on American academic and intellectual life. This book is concerned with "the gradual evolution of . . . [a] sense of personal and social commitment to the scholarly vocation" in the United States, and it uses the contrasting experience of the first and second generation of American students in Germany as a means of getting at that process.

In the early decades of the century, the author concludes, Americans in Germany studied philology and learned to look at classical languages and literature historically. They experienced literary texts as insights to language and culture. On the whole, however, this generation of students had trouble reconciling "humanistic vision with the practice of scholarship." They did not learn to be Germanic scholars, and at home, where there was little use for the talents of Ticknor, Everett, and Cogswell, they had little influence. For the generation that followed, however, the story was to be different. They learned the scholarly message but did not catch the humanistic vision, and thus returned to the United States prepared to reshape American higher education along lines of specialized, conventional, mechanistic scholarship.

As Diehl sees it, the business of nineteenth century intellectual life as it was formulated in the German universities was to define "a scholarly problem, the form that a scholarly explanation should take, and the kinds of data that would be permitted to count as evidence in a properly scholastic account of reality." In recording the triumph of technique in humanistic study over humanism itself, the author attempts a tentative exploration of the "evolution of modern scholarship in the humanities...the acquisition of technique and the rejection of vision by Americans who studied in German universities."

This study is divided into six chapters that explore the transfer of German scholarly technique to the American university: a consideration of the Germanic scholarly ideal; a case study of the paradigmatic German scholar; an account of the movement of Americans to the German universities from 1800 to 1870; the failure of the early students to assimilate the scholarship and style of German learning; the growing acceptance of the new learning in the United States; and the triumphant return of a later generation that mastered the techniques of German scholarship and brought to American higher education the apparatus and style of graduate study in the arts and sciences. Exemplars of the later generation were William Dwight Whitney, the first American Sanskrit scholar; Edward Elbridge Salisbury, the first American philologist; Francis Child, from 1851 to 1896 professor of English at Harvard; Basil Gildersleeve, professor of classical languages at Johns Hopkins; and G. Stanley Hall, pioneer American experimental psychologist.

7:7.0/77

The Emergence of Professional Social Science: The American Social Science Association and the Nineteenth Century Crisis of Authority, Thomas L. Haskell, 276 pp. (University of Illinois Press, Urbana, Ill.).

While this volume covers the same years and explores the same general subject as Furner *(Advocacy and Objectivity: A Crisis in the Professionalization of American Social Science, 1865-1905*, 7:7.0/75-1), Haskell's interest is the amateur social scientists who were eclipsed by the emerging professionals on whom Furner focused her attention. Both books document the rise of the professionals and the changing requirements for those who would speak with authority on the questions and issues appropriate to social science. They are marvelously complementary.

Haskell has essentially provided us with the career of the American Social Science Association—its appearance in 1865 as a club of genteel New England intellectuals and reformers who wanted to understand and improve post-Civil War America, and its displacement by the emergence of the professionals who, in the 1880's and 1890's, created a new group of learned societies appropriate to their specific professional yearnings. The American Social Science Association folded in 1909, a date that may be taken not only as signifying the establishment of the authority of the professionals but also the end of the amateurs—the lawyers, doctors, and clergymen who, as untrained formulators of social theory and social practice in an urbanizing industrializing society, brought their humanitarian and religious values to the solution of contemporary problems.

The amateurs played a significant role in civil service reform, in creating the National Conference of Charities and Correction, and even in founding the professional organizations that woul define them as amateurs. But their loss of credibility was assured by explanations and understandings rooted in an agrarian past, by an idealism that was unable to take the measure of urban and industrial reality, and by an ethic of self-reliance that the professionals were arguing was inappropriate to the scale and nature of the problems that beset modern society.

Haskell's book makes a contribution to the history of professionalization and of the academic disciplines, both their organization and their intellectual content, but it does much more. Here are the first professional scientists, the economists and sociologists and political scientists making their way into college and university faculties, rejecting the individualistic and religious path to social reform in favor of an approach both more collectivist and secular. This development would have lasting importance for the nature of academic communities, tensions in academic governance, and the role of the academy in society.

7:7.0/75

Advocacy & Objectivity: A Crisis in the Professionalization of American Social Science, 1865-1905, Mary O. Furner, 357 pp. (University Press of Kentucky, Lexington).

This study of the emergence of self-conscious professional economists, sociologists, and political scientists at the end of the nineteenth century is a pioneering work that received the Frederick Jackson Turner Award of the Organization of American Historians. In it, Furner does not concentrate on the basic knowledge of the emerging disciplines but instead on how the new professionals separated themselves from their amateur social science predecessors and clarified both the dimensions of their own specialities and their expectations for themselves as professionals. This is social history broadly conceived: an inquiry into complex social groups at a time when a new breed of academicians was defining the ambitions, functions, and values appropriate to their professional mission.

Furner has drawn heavily on the personal papers of some of the leading early social scientists—Richard T. Ely of Wisconsin, E. R. A. Seligman of Columbia, Henry Carter Adams of Michigan—as well as on the presidential papers of James B. Angell of Michigan, William Rainey Harper of Chicago, David Starr Jordan of Stanford, and Andrew D. White of Cornell. These and other sources have allowed her to describe and analyze the social scientists as they wrestled with the tensions created by their quest for scientific objectivity and their role as social reformers. One significant consequence of that tension, the definition and codification of standards of academic freedom, receives a fresh perspective in this study.

Furner shows how those social scientists concerned with market phenomena turned toward economics, while reformers drifted toward sociology and political scientists were shaped by an interest in public administration. The book is a contribution to the understanding of professionalization as a social and intellectual phenomenon. It clarifies the ways in which an emerging university movement in the United States fed and fed upon the emerging social scientists, who in turn fed and fed upon the universities as they achieved and defined their own professional status.

7:7.0/74-1

"Economists As Experts: The Rise of an Academic Profession in America 1870-1917," Robert L. Church, in *The University in Society*, Lawrence Stone, ed., Vol. 2, pp. 571-609 (Princeton Univerity Press, Princeton).

This essay is a contribution to the growing body of historical studies pertaining to the beginnings and development of the professionalization of the academy in the United States. In this instance, the author's purpose is to describe and understand the process whereby academic economists, from 1870 to 1917, provided relevance and value to academic careers by asserting an extra-academic influence and establishing themselves as men of consequence in society. In the author's view, "the shift from a stress on moralism and reform [1870] to a stress on objectivity and science [1920] . . . is best seen as a shift in strategy designed to enhance the economist's capacity to affect society."

7:7.0/74-2

"The Transformation of American Academic Life: Harvard University 1821-1892," Robert A. McCaughey, *Perspectives in American History*, Vol. 8, pp. 237-332.

This essay convincingly challenges the conventional wisdom that has assumed that the emergence of professionalism on university faculties was a sudden, dramatic, late nineteenth century phenomenon. As the author remarks about his study, "details about the impetus, timing, and mechanics of professionalization within a specific institutional setting have never [before] been presented." The instrument of his study is "an investigation of the origins, inherited social status, education, career patterns, self-images, and institutional perceptions of the 179 men who comprised the Harvard faculty at five points [1821, 1845, 1869, 1880, 1892] spanning the nineteenth century."

It is the author's thesis that, during the nineteenth century, the Harvard faculty was transformed in two ways: it slowly became more professional in credentials and outlook, and more universalistic and less particularistic: "What has he done?" becomes more important than "Who is he?", a distinction "absent in the 1820's . . . adumbrated in the 1840's . . . and operative at Harvard long before 1869."

McCaughey finds the characteristics of the professional in the ascendancy in his sample of professors: certifiable training in an academic specialty, experience as a teacher-scholar in a probationary capacity, employment by an academic institution as a specialist, commitment to publishing for other specialists, a priority of scholarship over teaching. He finds a gradual increase of appointments to the faculty of "outsiders," which he defines as academicians with impersonal institutional ties, professors lacking any previous ties with the institution of present employment, and professors with broad occupational and social contacts beyond the institution.

McCaughey has employed the Harvard archives imaginatively and has supported his findings with an impressive battery of appendixes that include an outsider index, a professional index, and a typology of the Harvard faculty by institutional perceptions, as well as studies that establish size and rank structure, geographical origins, and faculty rosters. This essay is rare in seeing the academy from the perspective of the faculty, for if students have been neglected by historians, so have professors: there is no history of the profession. One result in the historical literature is an overemphasis on the president.

7:7.0/70

The Unitarian Conscience: Harvard Moral Philosophy, 1805-1861, Daniel Walker Howe, 398 pp. (Harvard University Press, Cambridge, Mass.).

Here is a book that is a reminder of what colleges and universities are all about: ideas. The author has written an intellectual history, taking as his focus the Unitarian frame of mind that prevailed at Harvard and among many of its graduates for the first two-thirds of the nineteenth century. The election of Henry Ware to the Hollis professorship of divinity in 1805 signaled the retreat of orthodox Calvinism from Cambridge and a shift in the ethical point of view of Harvard. Henceforth Harvard was enlisted in advancing the cause of liberal Protestantism at the expense of Calvinist theology, adjusting Christianity to the Enlightenment, and emphasizing ethics rather than dogma, life rather than creed. Unitarianism may have been a religion of the elite, but it was an elite that mattered: Boston in those years was the literary and intellectual center of the country, and it was pervaded by Harvard Unitarianism.

Moral philosophy—every undergraduate was exposed to it—was, in a curricular sense, successor to theology and ancestor of the social sciences. Howe builds his account of Harvard moral philosophy around a study of the works of 12 leading Unitarian intellectuals of the Harvard school—four occupants of the Alford professorship of moral philosophy, four other Harvard professors, and four Harvard-trained Unitarian ministers. These include James Walker, Francis Bowen, Henry Ware, Sr., Andrews Norton, and William Ellery Channing. The author devotes five chapters to a study of their theory and explication of the humanism and liberalism that made them, in his view, "the most attractive representatives of the modern bourgeoisie." Another five chapters examine the implementation of their theory in the community, in religion, literature, politics, and education, and in confronting the slavery question.

Although "orthodox professors at Yale and Princeton enjoyed the approval of a wider public in their day," Howe concludes that "the long-range impact of the Harvard moralists on American religion was more significant." Their optimism and humanitarianism, as well as their role in mitigating the "callousness of laissez-faire capitalism," left their mark on the country's moral and intellectual life. Science, Biblical criticism, and the changing nature of the university would in the end undermine their influence, but there is no understanding the moral and intellectual thrust of nineteenth century America without acknowledging the contribution of the Harvard moral philosophers to academic scholarship, Transcendentalism, the genteel tradition in American literature, humanistic religion, philanthropy, and social reform.

8

Independent Higher Education

Virginia Ann Hodgkinson*

More than 1,500 institutions of higher education in the United States are classified as private or independent. In recent years, the latter term has gained favor with the private sector under the rationale that all institutions, whether controlled by the state or by an independent board of trustees, are "public" in that they serve the public welfare and are accessible to all who meet admissions criteria. Further, such institutions have been recognized by both state governments and the Federal Government as a significant resource in meeting society's demand for a skilled, educated work force. Programs providing support for independent institutions and their students have been legislated at both levels of government.

Many of the issues affecting independent higher education are included in other sections of this bibliography, such as those dealing with planning, finance, and student aid. However, there are some issues that are peculiar to independent higher education, both from the perspective of public policy and from a constitutional basis, that relate to the very essence of the role and missions of independent colleges.

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*Abstracts for 13 publications issued before 1979 were prepared by Elden T. Smith, who served as the original Associate Editor for this chapter.

This section deals with these issues in two parts: first, in terms of the special relationship that has been established between the independent sector and the Federal and state governments; and second, in terms of the philosophical and policy concerns that derive from this relationship, as well as policy issues unique to the independent sector.

The State and Federal Roles. Both the states and the Federal Government play major roles in providing support to independent higher education. State governments, traditionally the primary source of support for higher education, also have a direct relationship to independent colleges and universities as the chartering or certifying agencies for those institutions. Moreover, in the last 2 years, almost all of the states have established programs of financial assistance to independent institutions and their students, including student scholarships and grants, direct institutional support, contracts for services, facilities assistance, and special purpose and formula grants. This relationship is further enhanced by the involvement of the independent sector in statewide planning, in cooperative arrangements with public institutions, and in coordination of programs and curricula, and by the implementation of portability and reciprocity in state student aid programs.

The Federal role also has been important to independent higher education. Virtually all legislation establishing Federal programs of assistance to higher education has enabled, either by legislative language or intent, independent institutions and/or their students to participate in these programs. Federal initiatives have been primarily in the areas of student assistance (grants, direct loans, and guaranteed loans), facilities grants and loans to institutions, categorical aid for education in the sciences, humanities, and arts, and research grants and contracts for services.

Although student financial assistance is handled in Chapter 17 of this bibliography, some studies on state and Federal policy specifically relating to independent higher education are included here. The entries range from national studies on Federal and state policies toward independent higher education to the participation of independent institutions in statewide planning and coordination. The focus of these studies is the Federal and/or state role toward independent colleges and universities, as opposed to Federal and state policy applying to both the public and private sectors.

Philosophical Questions and Policy Concerns. The receipt of public funds by private institutions carries with it a mandate for accountability, for compliance with government regulations and guidelines, and for acceptance of specific goals and broad social objectives. Indeed, the mere exemption from certain forms of taxation for nonprofit educational institutions implies a limitation on total freedom and independence. Although recent court decisions have tended to minimize the issue of constitutionality of various programs of state and Federal aid, it is never far removed.

Further, government involvement with the private sector tends to limit the distinctiveness of independent institutions. As independent colleges and universities increasingly seek government financial assistance, and as state institutions increasingly seek funds from business and industry, alumni, and other private donors, the distinction between the two sectors becomes less pronounced. However, it is argued that indirect funding from Federal and state governments through student assistance provides more autonomy for both public and independent institutions.

Any bibliography covering the topic of independent higher education and government must include publications dealing with the issue of accountability vs. autonomy, the effects of compliance with laws, regulations, and guidelines on institutional policies and practices, constitutional questions, the impact of public funds on the independent sector, and the concern of independent colleges with diversity. The entries in this section, in dealing with these topics, cover a range of both philosophical issues and policy concerns. The range includes studies of specific types of independent institutions, from church-related colleges to women's colleges; policy changes specifically related to the condition of independent colleges and universities in the areas of mission and financial vitality; and specific studies relating to legal issues and independent higher education. The collection of entries is eclectic in nature, but always reflecting issues peculiar to independent colleges and universities—their nature, their missions, and their specific problems and challenges.

TOPIC ORGANIZATION

8: Independent Higher Education

1.0 The State and Federal Roles
2.0 Philosophical Questions and Policy Concerns

1.0 THE STATE AND FEDERAL ROLES

8:1.0/80-1

Economic, Social and Cultural Impact of Independent Higher Education on Missouri, Independent Colleges and Universities of Missouri-Research Foundation, 90 pp. (Independent Colleges and Universities of Missouri-Research Foundation, St. Louis).

This study demonstrates the combined economic, social, and cultural impacts of member institutions of the Independent Colleges and Universities of Missouri on the State of Missouri and on local communities. For example, it shows that, in terms of total payroll, these institutions are one of the top industries in the state, generating more than $1.3 billion annually in Missouri's economy and accounting for over 27,000 jobs in the state.

The importance of this study goes far beyond its relevance to Missouri. It is unique in being one of the first of its kind in the nation and in showing not only total economic impact, but also in giving the breakout of the impact on various economic sectors of the state. It is an excellent example of an impact study, and the methods developed in this study can, with minor modifications, be readily applied in other states.

8:1.0/80-2

The Independent Sector and Statewide Planning for Higher Education: The Data Initiative, 58 pp.; **Suggestions for Implementing the Data Brokerage Function in the State Association,** 32 pp.; **Some Policy Considerations for the 1980's,** 13 pp., Gerald H. Lunney and Eric D. Walters. (Council of Independent Kentucky Colleges and Universities, Danville).

In three related papers, the authors, both of whom are on the staff of the Council of Independent Kentucky Colleges and Universities, report on the Council's experience in examining the policy implications of the State Level Information Base (SLIB) project of the National Center for Higher Education Management Systems. Their purposes in developing a response to the SLIB project were to point out the potential misuse of data should the relationship between independent institutions and the state coordinating agency deteriorate and to stress the unnecessary paperwork burden that could be imposed by a state agency's expectation that independent institutions provide the same data as public institutions.

In general, the Council recommends that state agencies, in requesting planning data from the independent sector, "be sensitive to the nature of these institutions, its relationship to the institutions and the burden which its data requests will place on the institutions." Further, the Council stresses the fact that "a significant amount of information exists in a variety of state agencies which could be used by individual colleges and universities for institutional planning."

The Council's approach is relevant to other states' situations and needs. It serves as an important source in generating planning data and offers guidance and suggestions for independent institutions and state planning agencies in other states.

8:1.0/80-3

Keeping Pace: Trends in Federal and State Financial Aid for Students in California's Independent Colleges and Universities, 1975-76 to 1980-81, Morgan Odell and John Thelin, 65 pp. (Association of Independent California Colleges and Universities, Santa Ana).

This report analyzes the effects of need-based financial aid on students attending colleges and universities in California. It includes information on students and on the amounts of financial assistance at public and independent institutions, and it reports on the impact of inflation, tuition changes, and financial aid on these colleges.

Outside of California, the general importance of this report is a significant case study. The authors have gathered a large amount of information from a variety of sources and put it into a single volume to focus policy discussions. The report also serves as a model and sourcebook for student aid policy discussion in other states in suggesting guidelines, logic, and sources that lend themselves to analytic strategies for policy planning.

8:1.0/78

Independent College and University Participation in Statewide Planning for Postsecondary Education, Jay L. Chronister, 62 pp. (National Institute of Independent Colleges and Universities, Washington, D.C.).

In this volume, Jay L. Chronister, an associate professor at the University of Virginia's Center for the Study of Higher Education, describes the results of a study of the participation of the independent sector in statewide planning for postsecondary education. The study was designed to provide information on the operational relationships between the independent sector and state planning agencies and to report on the issues and accomplishments of the independent sector in statewide planning.

Among the conclusions noted by Chronister are that nearly every state has one or more mechanisms for involving independent colleges and universities in state planning for postsecondary education. However, there is a significant difference between the planning agencies and the independent college associations in terms of agreement on the mechanisms for involvement, activities in which the independent sector participates, the level of the participation, and the use of measures of success.

From a policy perspective, the study is important for two reasons. First, although a number of mechanisms and strategies for involving the independent sector in the planning process are identified, the importance of these mechanisms lies in the quality of the participation in those states where the participation is identified as successful. Second, in comprehensive planning, the issues that policymakers face seem relatively common across all sectors. If a state desires to achieve efficiency and effectiveness in meeting the postsecondary education needs of its constituencies, all institutions should be viewed as potential resources. This study demonstrates that not all states have taken that view toward the independent sector in terms of planning.

8:1.0/77-1

State Aid to Private Higher Education, A.E. Dick Howard, 1,020 pp. (The Michie Company, Charlottesville, Va.).

This volume presents a detailed and thoroughly documented study of the constitutional dimensions of state aid to independent colleges and universities in the 50 states. A.E. Dick Howard, a law professor at the University of Virginia, discusses both the federal and state constitutional constraints within which those drafting programs of aid to independent higher education must work. Jay L. Chronister of the University of Virginia's School of Education has contributed a chapter that outlines policy considerations and describes aid programs operating in the states.

Various state-by-state analyses follow a format that includes relevant provisions of each state's constitution, a sketch of historical events relating to church-state relations, and a commentary on the current state of the law.

Because of many changes in state aid programs that have occurred since the study was completed in 1977, Howard's work is partially outdated. However, as a historical reference and constitutional guide, his analysis is extremely useful in the policy considerations regarding state aid to independent higher education in the future.

8:1.0/77-2

Final Report and Recommendations: Task Force on State Policy and Independent Higher Education, 52 pp. (Education Commission of the States, Denver, Colo.).

This report recommends that each state develop a policy regarding the independent institutions that serve its citizens. Such a policy should be developed in light of state purposes and with a clear understanding of the conditions and role of independent colleges and universities. Full participation by the independent sector in statewide planning is urged.

The report suggests alternative approaches to state support, such as a student-centered approach for the creation of a network of institutions, both state and private, providing services and subsidized through direct or indirect grants, contracts, loans, and other means. The choice of alternatives would be largely determined by constitutional restraints and by the history and tradition of the state's higher educational structure. The importance of maintaining institutional integrity and autonomy in both private and state institutions is stressed. Further, the report emphasizes the need to continue and enlarge Federal programs, especially through the mechanism of the State Student Incentive Grant Program.

The report also examines the current (1976-77) status of independent higher education, its role in serving the public interest, and the rationale for maximum utilization of the private sector. Constitutional and legal issues in each of the 50 states are discussed. The report is well-documented by statistical tables and a series of exhibits detailing existing state programs, fund expenditures, participation in statewide planning, court decisions, enrollments, tuition differentials, and the like.

8:1.0/76

Private Higher Education and Public Funding, Louis T. Benezet, 62 pp. (American Association for Higher Education, Washington, D.C.).

In this paper, Louis T. Benezet discusses the present status of private higher education, describes the various kinds of public funding that have been provided, and analyzes the issues of independence and autonomy, public policy, and the rationale for a dual system of higher education in America.

In the first chapter, Benezet admits that private higher education is in trouble and cites evidence that this is an ongoing problem. He reviews efforts to gain substantial financial support from donors and from business and industry through organized, cooperative efforts such as the state foundations of private colleges and the Independent College Funds of America. He concludes that although the total dollars raised in such efforts have been significant, the result has been disappointing in relation to total institutional operating budgets. He also concludes that the private sector cannot survive entirely on its own and that recourse to tax funds is inevitable. He then proceeds to discuss Federal aid policies and programs, traces their development, and evaluates their effectiveness.

In his summary and conclusions, Benezet calls on private institutions to challenge certain basic assumptions by addressing such questions as: How do the liberal arts liberally educate people? Do private college faculty members give personal attention to students? If so, what differences in outcomes are evident? What impacts do institutional autonomy and diversified financial support have on a college campus? Perhaps the chief contribution of Benezet's study is his critical but nonpartisan approach to a subject that has few objective commentators.

8:1.0/74

State Financial Measures Involving the Private Sector of Higher Education, William H. MacFarlane, A.E. Dick Howard, and Jay L. Chronister, 105 pp. (Association of American Colleges, Washington, D.C.).

This study, commissioned by the National Council of Independent Colleges and Universities, examines the rationale for state aid to the private sector with respect to its historic, legal, programmatic, and policy bases. A.E. Dick Howard, a law professor at the University of Virginia, explores the constitutional aspects of state aid and reviews the provisions of the constitutions of the 50 states, together with a brief statement on any litigation instituted in those states. Another chapter discusses characteristics of various types of state aid and uses tables to indicate what kinds of programs states have established. Student support programs are then described in more detail, and a brief statement is made on the impact of state programs on private colleges and universities.

The study is an accurate and reasonably detailed account of the status of state programs in 1973, but because of the rapid changes in programs and funding levels that occur with each succeeding session of the state legislatures, the information given is useful chiefly as an historical base.

8:1.0/72-1

State Aid to Private Higher Education, Carol Shulman, 38 pp. (American Association for Higher Education, Washington, D.C.).

The author reviews private higher education's claim that it provides diversity, and vis-a-vis public higher education, permits innovation more readily and gives students more attention by reason of smallness and freedom from political control. She then cites the pragmatic financial reasons for public support of private higher education. To illustrate, she asks what would happen if private institutions were to close and the state universities had to absorb the enrollment of the private sector. She also discusses the various methods of giving aid to the private colleges and raises the question of whether student aid really increases the enrollment in private colleges to the point where institutional financial needs are alleviated.

Shulman also analyzes the various formulas that were either proposed or in effect as of 1972; discusses the problems created by the new state-private college relationships such as accountability, loss of autonomy through state intervention, loss of diversity in student bodies if students are primarily in-state residents, and the possible surrender of a highly selective admissions program; and discusses the question of constitutionality under state constitutions. Finally, she provides a bibliography of material relevant to the subject but prepared, for the most part, at the state level. The book lists various state programs established as of 1972.

8:1.0/72-2

Institutional Aid: Federal Support to Colleges and Universities, Carnegie Commission on Higher Education, 290 pp. (McGraw-Hill Book Co., New York).

Although this study does not deal specifically with the private sector of education, the private as well as the public sector is included as a possible recipient of Federal aid. The book analyzes the various formulas proposed for the distribution of Federal grants and discusses the distribution patterns that each would involve. The authors explore in depth the responsibility of both the Federal Government and the states for higher education, stress the importance of diversity in academic programs, and treat such subjects as the responsiveness to the financial crisis, the resource gap and the tuition gap, and the need for Federal support to serve Federal priorities. They also discuss cost-of-education supplements to student aid and constitutional feasibility.

The book has 12 appendixes, including a collection of statements from higher education associations reflecting their positions on whether and how Federal grants should be provided and administered, a listing of selected institutional grant proposals and formulas, a listing both of private and public institutions by type and enrollment, and a collection of relevant quotations from Earl F. Cheit, William W. Jellema, William Bowen, and others on the financial situation in colleges and universities.

8:1.0/68

New York State and Private Higher Education: Report of the Select Commission on the Future of Private and Independent Higher Education in the State of New York, 145 pp. (New York State Department of Education, Albany).

Although a number of states had made direct grants to private colleges and universities, this report was the first proposal for across-the-board grants to all eligible institutions based on a formula related to degrees granted.

The report's stated purpose is to ease the financial crisis of private, independent institutions of higher education in the State of New York. It proposes giving direct aid to eligible nondenominational colleges and universities for general educational purposes, with the amount of aid based on the number of annual earned degrees and with different levels of funding for bachelor's, master's and doctoral degrees. The report urges the establishment of a statewide coordinating and planning agency for private institutions, and proposes planning grants for the development of inter-institutional cooperation among both private and public institutions. The report also recommends that the state constitution be amended so that all private institutions would be eligible for state aid, but omits any reference to support for 2-year colleges.

The recommendations of this report were implemented, and the program set a standard for the other states to emulate. A referendum on the constitutional provision failed to enact the recommended change.

See also: 12:1.2/71 **The Capitol and the Campus: State Responsibility for Postsecondary Education,** Carnegie Commission on Higher Education.

6:2.0/71-1 **Statewide Coordination of Higher Education,** Robert O. Berdahl.

5:4.3/77 **The States and Private Higher Education: Problems and Policies in a New Era,** Carnegie Council on Policy Studies in Higher Education.

2.0 PHILOSOPHICAL QUESTIONS AND POLICY CONCERNS

8:2.0/81

A Study of the Learning Environment at Women's Colleges, Women's College Coalition, 193 pp. (The Coalition, Washington, D.C.).

This report presents a statistical profile of the 117 women's colleges in the United States. Four areas—mission, curriculum, administration, and faculty—were evaluated to offer descriptive data on the "learning environment" at these colleges. A section on the institutional mission of women's colleges deals with identifying some of the intended outcomes associated with a specialized environment. A curriculum section is concerned primarily with documenting the institutions' efforts in adapting the traditional curriculum to recognize the contributions and concerns of women. And sections on administrators and faculty explore the level of women's representation and their contributions to the learning environment.

The report, which describes the institutional characteristics of women's colleges as they affect the climate in which students and faculty live, is one of a planned series of research profiles on women's colleges by the Women's College Coalition.

8:2.0/80-1

Colleges and Corporate Change: Merger, Bankruptcy, and Closure, Joseph P. O'Neill and Samuel Barnett, 206 pp. (The Conference on Small Private Colleges, Princeton, N.J.).

This volume is intended as a sourcebook for trustees and administrators of institutions of higher education considering merging with another institution, declaring bankruptcy, or closing. As such, is a significant contribution to the higher education literature.

According to the authors, the sourcebook suggests ways to assess the costs and benefits of assuming a new corporate structure or dissolving an old one. The first five chapters are written primarily with trustees in mind, focusing on the importance of understanding the college's financial condition, the variety of and options for the corporate change of a college, the advantages and disadvantages of a merger, closing or declaration of bankruptcy, and the trustee's obligations and potential liabilities during the process of change. The final three chapters focus on the duties and responsibilities of senior administrators, especially in the case of a college closing. There are also two excellent appendixes that provide state-by-state summaries of regulations regarding the disposition of student records of independent colleges and universities and regulations concerning the dissolution of these institutions.

This book is a valuable tool for trustees and senior administrators who are considering a major change in their institution's corporate structure. It is useful compendium of a wide range of administrative, legal, financial, and human problems of closing and merger.

8:2.0/80-2

Church and College: A Vital Partnership, four volumes, National Congress on Church-Related Colleges and Universities, 724 pp. (The Center for Program and Institutional Renewal at Austin College, Sherman, Tex.).

This report discusses a 2-year cooperative program of the National Congress on church-related colleges and universities in which 23 denominations examined the issues facing their institutions. The four volumes of the report contain the significant papers and a record of events that developed from the activities of this National Congress.

Volume I, **AFFIRMATION—A Shared Commitment for Creative Renewal** (160 pp.), is a summary of the work of the National Congress. It contains affirmations about the value and contribution of the church-related college to American higher education, action plans to renew the colleges' ability to face the issues of the future, and an "inventory for renewal" to help colleges and churches alike continually assess their status. This volume also contains a brief description of all National Congress activities and processes, including excerpts from speeches at two national meetings. Of particular importance are the reports about the responsibility of church-related colleges to remain involved in public policy discussions as they relate to social issues, taxation issues, and legal issues pertaining to the first amendment to the Constitution.

Volume II, **MISSION—A Shared Vision of Educational Purpose** (160 pp.), and Volume III, **ACCOUNTABILITY—Keeping Faith with**

One Another (182 pp.), contain the papers developed by the six study commissions of the National Congress. The papers cover the six areas of educational purposes and programs, issues of society, relationships between churches and colleges, legal issues, public policy issues, and financial issues. For each area, the papers attempt to define the issues and to identify options for churches and colleges in dealing with them. An overview statement at the beginning of Volume II describes the general framework of church-related colleges and is the base from which the study commissions delved into specific issues.

Volume IV, **EXCHANGE—Sharing Resources for Renewal** (222 pp.), contains information of two kinds: a bibliography of recent books and published articles about church-related higher education; and a bibliography of materials on church-related higher education available through denominations and colleges. This volume is perhaps the most extensive bibliography on church-related higher education available to date.

The value of these volumes is in the various analyses of the present condition, mission, and contribution of church-related colleges. There are also extensive discussions in Volumes I and III of the responsibilities and concerns of church-related colleges in the development of public policy, particularly as it relates to college missions. These publications give the best overview of the position and concerns of church-related colleges as a part of American higher education and also relate the decision of these colleges to take a more active role in social issues as they relate to their academic mission. They also review the intention of these colleges and their denominations to actively engage in discussions relating to Federal tax policy toward church-related colleges, student aid issues, and legal issues, particularly those relating to church-state constitutional issues.

8:2.0/78-1

Church-Related Higher Education, Robert Rue Parsonage, ed., 344 pp. (Judson Press, Valley Forge, Pa.).

This volume is a collection of papers that examine a wide range of issues concerning church-related colleges. Among the topics considered are the "myths of church-relatedness," various categories of church-related colleges, historical overview of church-related issues, a consideration of current denominational policies and studies in higher education, and future "church-culture relations" and their impact on church-related higher education.

8:2.0/78-2

Colleges and Sponsoring Religious Bodies: A Study of Policy Influence and Property Relationships, Philip R. Moots and Edward McGlyn Gaffney, Jr., 101 pp. (Association of Catholic

Colleges and Universities, Washington, D.C., and the Center for Constitutional Studies, University of Notre Dame, South Bend, Ind.).

This paper sets out to identify legal issues to be considered and steps taken to establish relationships that both sponsoring religious bodies and colleges agree are desirable. The goals that the authors have identified to be shared by leaders of religious bodies and of related colleges include: (1) establishing and maintaining a relationship in which the sponsoring religious body exercises some degree of influence upon policies and actions of the college; (2) maintaining some degree of security in or control over property that is contributed by the sponsoring religious body; (3) avoiding imposition on the sponsoring religious body of any liability as a result of its relationship to the college; and (4) maintaining eligibility for support from both Federal and state sources for the institution and its students. This study is relevant to any religious denomination that is affiliated with a college or university.

8:2.0/78-3

Freedom and Education: Pierce v. Society of Sisters Reconsidered, Donald P. Kommers and Michael J. Wahoske, eds., 111 pp. (Center for Civil Rights, University of Notre Dame Law School, South Bend, Ind.).

This book grew out of a symposium held at the University of Notre Dame to discuss the impact and aftermath of the 1925 Supreme Court decision in the case of *Pierce* v. *Society of Sisters*. This landmark case involved a suit against the State of Oregon over an attempt to require, effectively, that every child between the ages of 8 and 16 attend a *public* school.

The papers that make up this book discuss, with the *Pierce* case as a backdrop, current issues of parental rights in education and state and Federal jurisprudence as it relates to public funding of programs providing aid to church-related colleges and universities. There is also an extensive bibliography of literature relating to church-state relations in the United States.

8:2.0/78-4

Church, State, and Public Policy, Jay Mechling, ed., 119 pp. (American Enterprise Institute for Public Policy Research, Washington, D.C.).

This book is based on a conference that explored changes in church-state relations and examined some assumptions by which the controversies relating to church-state relations should be resolved. The distinctive assumption on which the conference participants based their reports was that decisions on church-state relations should take full account of the role of "mediating structures" in public policy. Mediating structures are defined as "those institutions in contemporary society that stand between the individual's private life and the larger institutions of the public sphere."

Many will find the discussion very stimulating and thought-provoking. It is relevant beyond the specific references to education and is important reading for anyone interested in church-state affairs.

8:2.0/78-5

Problems and Outlook of Small Private Liberal Arts Colleges, 96 pp., U.S. General Accounting Office (Comptroller General of the United States, Washington, D.C.).

This report focuses on independent "Liberal Arts II" colleges, with an emphasis on institutional finances. The fieldwork for the report, conducted in 1975-76, indicates that one-fourth to one-third of these colleges were experiencing financial difficulty as shown by extensive deficit operations, borrowing substantially to cover current operating deficits, and being delinquent in debt service payments. These problems were reported as being due to insufficient revenues because of declining enrollments, inflation, and a lack of prompt and effective administrative controls.

The report also indicates that most college officials were guardedly optimistic about the financial future of their institutions and expected improvements within 5 years, although GAO warns that this guarded optimism might be short-lived. Such continuing problems as declining enrollments, increases in payroll taxes due to changes in social security legislation, minimum wage increases, growing energy costs, and the increasing costs to meet Federal social program regulations could adversely affect these colleges' future financial condition. Among the recommendations to Congress and the Administration are requiring the periodic assessment of the financial condition of postsecondary education institutions using standard indicators.

Since this report was released, much has been done in the area of assessing the financial condition of higher education, particularly in the independent sector. However, much remains to be done in this area. While the information in the study has become somewhat dated, this is still useful as a historical piece and as a tool to provide some direction for future research.

8:2.0/77-1

Private Colleges: The Federal Tax System and Its Impact, Gerald P. Moran, 88 pp. (Center for the Study of Higher Education, University of Toledo, Ohio).

This extremely useful little book brings together a great deal of information about one of the most important sources of support for the private sector of higher education. Law Professor Gerald P. Moran first discusses exemption from Federal income taxes. He reviews the philosophical bases and historical precedents that led to the acceptance of the principle of tax exemption, describes the problems that have arisen as a result of definitional difficulties and modern business practices, and discusses recent representative cases and rulings dealing with private colleges and universities. He then provides similar coverage of the charitable deduction as a motivation and a mechanism for providing financial support to independent colleges and universities and other eleemosynary organizations. He commends the Filer Commission Report, which urges increased deductibility from income of such contributions and proposes that such deductions be available to taxpayers using the standard deduction. He reports on the governmental cost of tax subsidies and reviews current rules on such matters as capital gains, ordinary income, and estate and gift taxes.

Moran also discusses the role of the private college, especially with reference to ethical control and use of endowments, briefly discusses the concept of tax credits, and reflects on college's responsibility to be concerned about the tax interests of faculty and staff. This book should be of interest not only to the members of boards of trustees of private colleges and universities, but also to higher education planners who are often unaware of this important source of revenue of both state and private institutions.

8:2.0/77-2

A Profile of Private Liberal Arts Colleges, Bruce M. Carnes, 73 pp. (U.S. Department of Health, Education, and Welfare, Washington, D.C.).

Using data collected by the National Center for Education Statistics, the American Association of University Professors, the Association of American Colleges, and the American Council on Education the author has developed a profile of independent liberal arts colleges. The institutions chosen for examination were those classified as Liberal Arts I and II under the Carnegie system. At the time the report was issued, the number of colleges in this category was approximately 690.

The report begins with an overview of the condition of higher education in general that attempts to establish a context in which to view these liberal arts colleges. From there it moves to an examination of trends in institutional and enrollment growth, changes in students, and the impact of those changes on curriculum, the status of faculty and staff, and institutional finances.

Because this report used statistics current only through fall 1976, it is not a very up-to-date reference. However, it is valuable as a historical piece and serves as a basis for future research by providing a significant amount of information and by indicating what data still need to be collected.

8:2.0/77-3

Strategic Policy Changes at Private Colleges, Richard E. Anderson, 97 pp. (Teachers College Press, Columbia University, N.Y.).

Demographic changes and economic conditions have made many institutions of higher education alter their educational goals. To expand their college's applicant pool and thereby increase enrollments, administrators at these colleges have turned to a more "general" institutional mission.

This report examines the environmental, educational, and financial consequences at 40 independent institutions that changed their policies relating to their historical missions. Specifically, the report focuses on colleges that were either religiously-oriented or single-sex in the middle 1960's, and compares 10-year environmental and financial trends.

The author, a faculty member at Teachers College, Columbia University, reports that while colleges that expanded their missions increased enrollments somewhat more rapidly than those that did not, adverse environmental consequences (e.g., decreases in "campus morale" and "sense of community") appear to have accompanied these changes. However, the real loss, as Anderson sees it, is that the special and distinctive educational environments that characterize the special purpose college are rapidly disappearing.

For college administrators, as well as public policymakers, this report is significant. Institutional planners may balance economic improvement at the potential cost of uniqueness over time, leading to short-run increases but long-term problems. Policymakers may find the study interesting as it shows the decline of institutional diversity during a decade when a number of single-sex and religious colleges changed their missions.

8:2.0/77-4

A Survey of Public Policy Priorities at Independent Two-Year Colleges, Peter Pelham and Virginia (Fadil) Hodgkinson, 76 pp. (National Association of Independent Colleges and Universities, Washington, D.C.).

This survey was intended to determine the extent to which independent 2-year colleges are involved in and affected by existing public policies. Among the major findings and implications for public policies reported are: (1) the emphasis on the major Federal need-based student assistance programs, in addition to the Veterans' Education Benefits Program and the Social Security Benefits Program; (2) the importance of various Federal categorical programs, such as the College Library Assistance, Veterans' Cost-of-Instruction, manpower training, Fund for the Improvement of Postsecondary Education, and Strengthening Developing

Institutions programs; and (3) the necessity to fund programs or develop legislation for the construction and renovation of buildings, for partial aid in offsetting costs of federally mandated social programs, particularly in the Affirmative Action to Correct Discrimination Against the Handicapped and the Occupational Health and Safety Acts.

Although this study was written several years ago, the issues remain priority concerns for most independent 2-year colleges. Therefore, this report is valuable not only as a reflection of priority issues at a particular time, but also as an indication of the continuing importance of those same issues over several years.

8:2.0/76

Endangered Service: Independent Colleges, Public Policy and the First Americans, National Commission on United Methodist Higher Education, 144 pp. (The Commission, Nashville, Tenn.).

This book is an analysis of public policy and legal issues related to institutional-state and church-state relationships. It examines alternative social goals for public policy and strategies to implement such goals. The book discusses independent colleges and the public service they perform, and argues that it is important that state and Federal policy recognize that service and preserve its benefits to society. It stresses the importance of diversity and autonomy, and urges that the government be aware of the need to preserve these characteristics. The book also explores the values of freedom of choice for students in selecting the institution to attend, and states that the formidable financial barriers to freedom of choice should be removed by the establishment of offsetting financial assistance.

The book devotes much attention to constitutional questions. It reviews the relevant court decisions and concludes that the legal validity of aid to the private sector has been substantially established. The book states, however, that the case has not yet been won in relation to the acceptance of firm and generally accepted public policy. The book stresses the importance of continued tax exemption for private colleges, urges the continuance of Federal and state tax policies providing incentives for voluntary support, suggests that private institutions be deeply involved with the public sector in statewide planning, and urges state and Federal governments to make every effort to reduce the onerous burden, both financial and otherwise, imposed by excessive regulation and reporting requirements.

8:2.0/74-1

A National Policy for Private Higher Education, Task Force of the National Council of Independent Colleges and Universities, 80 pp. (Association of American Colleges, Washington, D.C.).

This task force report on financing private higher education begins by stating the case and claiming that the preservation of the private sector is important because it maintains diversity, provides a system of checks and balances, sets a standard of excellence, reinforces academic freedom, champions liberal learning and values, and relieves the taxpayers of a significant financial burden. It presents evidence of a mounting financial crisis in the private sector and stresses the importance of narrowing the "tuition gap" between charges made by private institutions and state colleges and universities.

The report then addresses the problem of geographical inequities in state aid to students in the private sector and suggests modification of Federal student aid programs that would enhance their usefulness to students attending private institutions. It advocates statewide planning to avoid duplication of programs and wasteful competition. It stresses the importance of maintaining the tax deductibility of philanthropic gifts and the need for continued tax exemption from real estate and other taxes. It urges private institutions to accept the effort of state institutions to raise funds from private sources.

The major innovative idea set forth by the task force is that a program of tuition offset grants should be established by the states in an effort to narrow the tutition gap between private and state institutions. The task force offers the options of: (1) making grants directly to an institution in payment for services, (2) providing grants to students on the basis of the cost of attending the institution, or (3) establishing offset grants to all students at private colleges. It also advocates elimination of the need factor for such grants.

8:2.0/74-2

Private Colleges: Present Conditions and Future Prospects, Carol F. Shulman, 62 pp. (American Association for Higher Education, Washington, D.C.).

This study begins with a brief review of the history of American public aid to higher education from colonial times through the 19th century and into the 20th century. The author then deals with the problems of defining goals, formulating curricula, and attracting students. She discusses the questions of distinctiveness, student characteristics, recruiting efforts, the benefits of private education, and curriculum.

The author then takes up the matter of government relations with private institutions. She reviews the state of government support in 1974 and the various programs by which such assistance is provided, concluding that attendance in the private sector is affected by state student grants. She discusses the disadvantages of state student aid and indicates that a major hazard is for the state to develop a level of expectancy on the part of students and then disappoint them by failure to legislate adequate funds so that the institutions have to supplement public funds from their own resources. She cites the increasing degree of state involvement in the management of private colleges as a disadvantage. A discussion of Federal aid leads to consideration of the church-state question of constitutionality and court decisions relevant to the issue.

The author's review of the financial problems in the private sector is largely a recapitulation of other studies on the subject. She describes the burden of student aid furnished by the institution and speculates on the financial outlook for private higher education. The study is interesting chiefly as a reflection of the particular time and the conditions that existed when it was made.

See: 29:1.1/73-2 **The Management and Financing of Colleges,** Committee for Economic Development.

This report was sponsored by a committee, composed primarily of representatives of the business community, that studies major economic issues facing society. The report was published, widely disseminated, and discussed in a series of regional meetings, but it seems to have had relatively minor impact on government or higher education. It devotes attention to such matters as goals, objectives, accountability, and educational planning. Much emphasis is placed on management authority and responsibility, with special reference to the reserving of these powers by trustees. Management and educational policy are discussed, with emphasis on management methods and personnel, management and budgeting, and management and the improvement of teaching. Strategies for economy, nontraditional education, academic freedom, security and due process, faculty tenure, and collective bargaining are covered, and special attention is given to strategy for increased financial suport.

The primary target of the report's critics was a proposal to raise tuitions to a level nearer the cost of education in both the public and private sectors and to provide the need-based grants and loans to students to help meet these increased costs. The report includes a number of specific recommendations relating to various phases of higher education.

8:2.0/72

To Turn the Tide, Paul C. Reinert, S.J., 111 pp. (Prentice-Hall, Englewood Cliffs, N.J.).

In 1971 Paul C. Reinert, S.J., president of St. Louis University, undetook "Project Search" to determine the situation in the private sector of higher education and to suggest what might be done "to turn the tide." He created a series of panels comprising educators, legislators, laypersons, students, and business leaders to discuss certain basic questions about private higher education. Essentially, this book developed from those discussions. The book describes the financial crisis in private higher education, along with the rationale for the continued existence of private colleges. The question of college finance is explored, and the author calls for a sharp improvement in internal management of the institutions. He then discusses the appropriate role for the states in relation to private higher education, which he deems to be that of leadership in pointing the way, and he advances arguments for increased Federal aid to follow.

This book creates a sense of the urgency of the crisis for private higher education, and it had considerable impact on various publics. While well-documented, it is not loaded with statistics but rather describes the problem and discusses the various factors, including substantial government subvention necessary to achieving a solution. It has been an important book in the development of the relations of the private sector to state and Federal governments.

8:2.0/71

Tilton v. Richardson, The Search for Sectarianism in Education, Charles H. Wilson, Jr., 53 pp. (Association of American Colleges, Washington, D.C.).

Charles H. Wilson, Jr., was an attorney for the defendant Connecticut colleges in the landmark case, *Tilton* v. *Richardson*, on which the United States Supreme Court handed down a decision on June 28, 1971. The Court ruled in its 5-4 decision that church-related colleges may receive Federal grants to construct academic and other buildings under the Higher Education Facilities Act of 1965, with the restriction that such buildings may never be used for religious instruction or worship.

Wilson reviews the court decisions leading up to *Tilton* and analyzes the majority opinion (written by Chief Justice Warren Burger) and the dissenting opinions. He then examines the implications of the decision and the criteria established by the Court. He also suggests what actions institutions might take to retain their historic sectarian tradition and still remain on safe constitutional grounds. The criteria articulated by the Court set precedents for later decisions on institutional and student aid, making the Wilson analysis substantively important and somewhat prophetic.

See also: 5:4.3/78 **Public Policy and Private Higher Education,** David W. Breneman and Chester E. Finn, Jr., eds.

5:5.0/73 **The New Depression in Higher Education: A Study of Financial Conditions at 41 Colleges and Universities,** Earl F. Cheit.

5:5.0/S-2 **Private Higher Education, First (Second, Third, Fourth, Fifth) Annual Report on the Financial and Educational Trends in the Private Sector of American Higher Education,** W. John Minter and Howard R. Bowen.

9

Institutional Role and Mission

John D. Millett

The topic of institutional role and mission is concerned with efforts to describe or prescribe differential purposes for various colleges and universities comprising the universe of higher education. It has long been recognized that individual colleges and universities serve different ends, even though the differences are frequently muted in institutional self-description and even though diversity is often forgotten in the competition for enrollment growth. Administrators and faculty members may object strenuously to the efforts of others to describe their unique characteristics and sometimes resist the prescription of a specialized role set forth by a state board of higher education.

Differences among colleges and universities are of many kinds. One fundamental difference is that between public and private sponsorship. Although the distinction is familiar, the meaning and the scope of the difference have not been simple to articulate. Another difference is that between the residential institution, which provides or supervises housing for its students, and the commuting or urban institution, which enrolls students who commute from a family residence. The residential institution tends to attract primarily full-time students; the commuting institution may enroll large numbers of part-time students. A third distinction is that between selective admission and open admission, between institutions prescribing certain ability and other standards for entry and institutions admitting any high school graduate or any person with the equivalency of high school completion.

The most important distinction among institutions, however, is the distinction based on program. The primary scheme of classification of colleges and universities in the United States differentiates institutions by major purpose: the research university, the comprehensive university, the liberal arts college, the separate specialized professional school, and the 2-year institution. In some instances, the comprehensive university may be an upper-division and graduate study institution.

The institutional role and mission topic is sufficiently broad to permit organization of the subject matter into four major subtopics. The first deals with the nature and description of the differential roles; the second with the social expectations required of these roles; the third with determination of the need for specific institutions and programs; and fourth with review of the programs of established colleges and universities.

Differential Roles. The classification of institutions by one or more predominant characteristics is necessarily accompanied by an effort to explain the basic differences. These explanations reflect observations about differences in purpose and differences in performance. To some extent, differences arise from variations in quality, and qualitative differences are likely to be reflected by differences in economic resources. For state boards of higher education, with their authority to promulgate master plans, to approve academic programs, and to coordinate institutional operations in terms of statewide needs—at least insofar as state-financed institutions are concerned—the prescription of different roles and missions for different campuses is an essential part of higher education planning.

Public Interest. The presence of different types of educational programs among different types of institutions may be considered an appropriate response to diversity in social expectations. Perhaps no aspect of the study of higher education as a vital social institution has been more neglected than the subject of social expectation. This circumstance may partly be attributed to the pluralistic and liberal features of American society. Social expectation is expressed through the voices of many groups and interests and through actions of nongovernmental as well as governmental agencies. Partly, this circumstance may be attributed to the reluctance of American leaders to set limitations on social aspirations. The desirable and reasonable social expectations to be addressed to colleges and universities currently are in a state of flux and in need of analysis and determination. No doubt these social expectations have to do with the preservation and transmission of knowledge and culture; the cognitive, affective, and skills development potential of individuals; the provision of educated manpower to the economy; the encouragement of social mobility based on talent; the advancement of knowledge and the patronage of creative abilities; the utilization of knowledge and creative ability for the practical and esthetic benefit of society; and cost-effective service.

The Need for Institutions. The expectations of society for benefits from higher education must be translated into the organizational reality of particular colleges and universities. To some extent, determination of the need for particular educational programs and for particular enterprises able to deliver these programs occurs within a governmental context, reflecting the political response to perceived and desired benefits. And to some extent, it occurs within and among voluntary groups. A sense of need usually precedes the decision to build and support a particular kind of higher education enterprise.

Program Review. Once established, colleges and universities develop their own dynamics. The internal aspirations of administrative leaders, faculty members, and students may lead to various kinds of program change and program expansion. The availability of new sources of income may encourage new kinds of educational ventures. Changing social circumstances may induce varied response by particular colleges and universities. The programs of a college or university may come under external review in an effort to ensure qualitative performance, appropriate action to meet social needs, and the utilization of scarce economic resources for programs of highest priority. As the performance of various educational programs involves more and more requests for social support in terms of charges to clients, appeal to benefactors, and expected subventions by government, colleges and universities have found themselves increasingly subject to program scrutiny. Such scrutiny can be expected to increase in intensity and scope with changing social perceptions of the benefits being derived from higher education.

No orderly presentation of a particular planning subject can hope to avoid overlap with other subjects or to provide a precise presentation of research findings and general observations. The subject of institutional role and mission is no exception. The outline here is at best suggestive; it cannot achieve orderliness where order does not exist. The outline is at best indicative of a range of concerns present in higher education planning.

It must be emphasized here as elsewhere that both governmental and nongovernmental planning are concerned with the determination of roles and missions for particular colleges and universities. In turn, governmental planning in a federal structure of political power involves local units of government, state units of government, and the Federal government. Just as there is no simple structure to American society, there is no simple structure to higher education planning.

TOPIC ORGANIZATION

9: Institutional Role and Mission

- **1.0** Differential Roles
  - **1.1** Institutional Purposes
  - **1.2** Classification of Institutional Roles
  - **1.3** Profiles of Institutional Types
  - **1.4** Planning Distinctive Missions
- **2.0** Public Interest
- **3.0** Need for Institutions
- **4.0** Program Review

1.0 DIFFERENTIAL ROLES

1.1 Institutional Purposes

9:1.1/81

A Quest for Common Learning: The Aims of General Education, Ernest L. Boyer and Arthur Levine, 68 pp. (The Carnegie Foundation for the Advancement of Teaching, Washington, D.C.).

This essay by the president and vice president of the Carnegie Foundation was written to encourage continuing discussion of a troublesome and singularly intractable problem: how to design a general undergraduate program, as opposed to specialized education. The authors acknowledge that general education is chronically in a state ranging from casual neglect to serious disrepair. The essay mentions the extensive attention given to general education during the 1970's, most of which resulted in little coherent program development, and identifies three different general education reform movements evident during this century.

The authors define the agenda for general education as those experiences, relationships, and ethical concerns common to all persons simply because of their membership in the human family. They see a revitalization of general education as an urgent requirement of our day. The academic major and its accompanying electives are pictured as giving emphasis to individual interests. General education is needed to give emphasis to the common interest.

Following a review of current practice, the authors set forth their own proposal for common themes of general education: shared use of symbols, shared membership in groups and institutions, shared producing and consuming, shared relationship with nature, shared sense of time, and shared values and beliefs. The appendixes add useful bibliographical data for further review by academic planners.

See: 12:1.1/81-3 **The Modern American College,** Arthur W. Chickering and associates.

Intended as a sequel to or revised version of *The American College* (edited by Nevitt Sanford and colleagues published in 1962), this current effort again argues that the overarching purpose of higher education is to encourage and stimulate intentional developmental change throughout the life cycle of the individual. The volume is introduced by a foreword written by Sanford.

The discussion is based on two primary assumptions: (1) that colleges and universities in the 1980's will have to deal with an increasingly diverse range of students in terms of age, educational goals, ethnic background, preparation, and socioeconomic status; and (2) that undergraduate education must better understand student motives, attitudes toward family and citizenship, work interest, competence, knowledge, and ways of learning. These propositions are elaborated and analyzed in 42 chapters written by 52 authors. The chapters are organized in three parts that consider, respectively, today's students and their needs, the implications for curriculum, and consequences for teaching, student services, and administration.

Part One begins with a chapter on the life cycle by Chickering and Robert Havighurst that reviews at some length the literature on the subject. The developmental tasks of the adult years are described by age groupings: late adolescence and youth (16-23), early adulthood (23-35), middle transition (35-45), middle adulthood (45-57), late-adult transition (57-65), and late adulthood (65+). This discussion is followed by chapters on ego development, cognitive and ethical growth, intelligence, moral development, humanitarian concern, interpersonal competence, capacity for intimacy, professional and vocational preparation, learning styles, women's educational needs, special needs of blacks and other minorities, interests of adult learners, and opportunities for adult learners. Of these chapters, the one on learning styles by David A. Kolb is particularly useful for curriculum planners and faculty members.

Part Two deals with teaching and learning issues of particular disciplines: English, theater arts, philosophy, history, economics, psychology, anthropology, biology, interdisciplinary studies, business administration, engineering, education, human service, and the helping professions. The combining of disciplines with fields of professional learning makes for some disjunction of discussion, and the treatment throughout remains fairly elementary.

Part Three is especially heterogeneous in content, from a beginning chapter on how persons acquire a sense of purpose to a concluding chapter on evaluating adult learning and program costs In between are chapters on instructional methods, individualized education, field experience, mediated instruction, credentialing prior experience, student-faculty relationships, out-of-class activities, residential learning, educational advising, governance, administrative development, and professional development. This part claims to undertake more than it can deliver. Three chapters in particular—on governance, on administrative development, and on professional development—are out of focus with the others.

The book addresses a vital subject: how should colleges and universities alter their instructional programs, course structures and requirements, instructional methods, and relationship to students of varied background and interests. There are many useful insights. Inevitably, in a volume of so extensive coverage and so many different authors, both depth of discussion and consistency of content are sacrificed. The book nonetheless remains a challenging starting point for all academic planners.

9:1.1/80-1

Affirmation, Mission, Accountability, and **Exchange,** National Congress on Church-Related Colleges and Universities, 160 pp., 188 pp., 182 pp., and 222 pp. (The Center for Program and Institutional Renewal, Austin College, Sherman, Tex.).

In the two years 1978-1980, the National Congress on Church-Related Colleges and Universities brought together 23 denominations to examine the issues facing their institutions of higher education. The 23 denominations represented over 600 colleges and universities with an enrollment of 1.2 million students. The Congress held two national meetings and accomplished much of its work through various task forces.

The principal purpose of the National Congress was to reaffirm the role and value of church-related colleges and universities. Its reports seek to restate basic Christian commitments, to establish new bonds of unity and understanding between the institutions and their sponsoring denominations, to encourage an attitude of openness among church-related institutions, and to foster an understanding and awareness by the American public of the contributions of church-related colleges and universities.

The first report, *Affirmation*, contains several papers presented to the National Congress, a statement on affirmation adopted by the Congress, and an action plan for renewal. The longest document (some 40 pages) is an inventory of current circumstances of church-institutional relationships. The second report, *Mission*, reviews the concerns of church-related colleges and universities, presents various papers dealing with purpose, program, and concern with social issues, and offers discussions of the kinds of relationships between church and college. The third report, *Accountability*, presents papers on legal issues, policy issues, and financial issues confronting church-related colleges and universities. The fourth report, *Exchange*, is primarily a bibliography, plus a listing of documents and activities dealing with the mission, governance, management, faculty, and ministry of church-related higher education.

The four reports of the National Congress provide the most extensive statement in this century about church-related colleges and universities.

9:1.1/80-2

Education and Values, Douglas Sloan, ed., 279 pp. (Teachers College Press, New York)

This collection of essays first appeared in a special edition of the *Teachers College Record* and then was made available in book form. Twelve contributors from various backgrounds and perspectives have sought to explore the connection between knowledge and human values. The very distinction is unacceptable to some authors, while others valiantly insist that empirical knowledge and ethical knowledge are not competitors but twin purposes in the pursuit of learning.

In any such collection, the reader will find some essays more insightful, more intriguing, and even more convincing than others. This reader was particularly impressed by four essays: "Excluded Knowledge," by Huston Smith; "A Personalistic Philosophy of Education," by Peter A. Bertocci; "Toward a Methodology of Teaching About the Holocaust," by Henry Friedlander; and "The Teaching of Ethics in the American Undergraduate Curriculum, 1876-1976," by Douglas Sloan.

The entire volume provides helpful suggestions for all faculty members who struggle to define their instructional objectives. The four essays mentioned in particular make the volume doubly rewarding for all who care about the purposes of higher education.

9:1.1/80-3

Liberal Education in Transition, Clifton F. Conrad and Jean C. Wyer, 66 pp. (American Association for Higher Education, Washington, D.C.).

This research report (ERIC/Higher Education Research Report No. 3) reviews the extensive writing about liberal and general education. It begins with attention to the liberal tradition and then explores in more detail recent literature about liberal learning. The trends observed include increased attention to the design of liberal education because of financial pressures, reaction to curriculum changes of the 1960's, interest in competency skills, and interest in the values associated with education.

The authors discuss three dominant models of liberal arts curricula—the distributive model ("a continuum of prescription with a core curriculum at one end and a free elective system at the other"); the integrative model ("the development of a body of knowledge and skills through the synergistic combination of several disciplines with a focus on a specific theme or problem"); and the competence-based model ("recognition of competencies regardless of where they are achieved and without major time constraints").

9:1.1/80-4

"Essentials of Mission," John D. Millett, *Management, Governance, and Leadership,* John D. Millett, 207 pp. (AMACOM: a division of American Management Associations, New York).

This chapter (Chapter 3) of Millett's guide for college and university administrators provides the most comprehensive outline currently in the higher education literature regarding the various issues to be resolved in formulating a statement of mission. In the author's view, a mission statement must address broadly issues involving instruction (objectives and program), research, public service, urban or residential orientation, access, enrollment size, enrollment characteristics, quality, and resources. Millett outlines these components and discusses the thought process and alternative choices in developing mission statements in each of these areas.

See: 34:1.0/80-2 **Power and Conflict in Continuing Education: Survival and Prosperity for All?,** Harold J. Alford, ed.

This volume consists of nine articles, mostly by deans of continuing education, addressed to three major questions: Who shall provide continuing education? How shall continuing education be organized and financed? What new efforts are to be made in the field? The book offers almost as many answers to these questions as there are authors. There is much advice, and sometimes it is conflicting in nature. For example, one dean argues that continuing education administrators should not seek the support of central administration lest they be saddled with financial objectives and overhead costs harmful to their effort. One sees continuing education as the salvation of an underemployed faculty. Another sees traditional faculty members as hostile to continuing education.

If continuing education is to be financed on the basis of direct charges, then certain clienteles and certain marketing practices are imposed upon the endeavor. If continuing education is to seek out disadvantaged groups, then it must be supported by governments or philanthropy. And over the whole activity hangs the threat of ever larger corporate initiatives and association efforts in the field. It may be that some corporations would rather buy continuing education service than produce it, as one corporate official maintains, but we may be skeptical about his point of view.

There is little doubt that there is ample room for conflict and for power struggles in the realm of continuing education.

9:1.1/79-1

Academic Strategy: The Determination and Implementation of Purpose at New Graduate Schools of Administration, Larue Touer Hosmer, 247 pp. (Graduate School of Business Administration, University of Michigan, Ann Arbor).

Using three case studies of the development of new graduate schools of administration, two in England and one in the United States, Larue Hosmer purports to find strategic guidance for all programs of academic institutions. A successful strategy, he maintains, depends on the formulation of a distinctive mission, a careful interrelationship of instruction and research and course development, and an appropriate evaluation of output.

The author states that the current political and financial difficulties of colleges and universities call for strategic change, a process that he believes most faculty members and administrators resist. He finds the business organization more likely than the academic organization to understand the importance of strategic change and to implement such change. Only as the academic enterprise is willing to accept the need for such change, Hosmer says, will it be able to cope with the changing environment of the 1980's.

9:1.1/79-2

Preface to the Philosophy of Education, John Wilson, 249 pp. (Routledge and Kegan Paul, Boston).

The author, a lecturer and tutor in the Department of Educational Studies at the University of Oxford, argues that education is sufficiently general, sufficiently disconnected from other human enterprises, and sufficiently permanent to have a philosophical problem of its own. The problem turns out to be a set of problems: What is learning? What is learning worth, and how much learning does a man need? What virtue or quality is inherent in learning? How do we encourage persons to learn? The questions seem relatively obvious and simple, but any teacher knows that the answers are not.

The author begins his discussion by defining education as a particular, institutionalized, form and process of human enterprise designed to produce certain kinds of results or goods gained through learning. The intention of learning is not sufficient to justify the endeavor; rather, the fact of learning is the justification for education. But is any kind of learning to be valued or only certain kinds of learning? What about learning to torture or kill? The author passes by the moral issue in order to restrict his definition to embrace learning above the level of nature—intended, successful, and part of some general plan for the learning of persons as persons.

The discussion grapples with many basic issues, such as the difference between training and education, general as opposed to specialized learning, the cultural constraints on learning, the moral dimension of learning, conceptual as opposed to applied learning, and useful as opposed to non-useful learning. The philosopher seeks to illuminate the issues even when he has no final answers or prefers to avoid the dogmatism of final answers.

In his discussion of learning, the author sets forth some conceptual requirements that will seem quite reasonable to educators. Similarly, the discussion of the content of learning will win general approval. When attention turns to learning in relation to human nature, the philosopher has concerns to express rather than certainties to explicate.

A philosophy of education must necessarily deal with vital issues. But in Western culture, philosophy is hesitant, partial, tentative, dynamic. Such a philosophy reveals Western culture at its best, and at its worst, in refusing to propound absolutes even when they may be demanded by some extremists.

9:1.1/79-3

Renewing Liberal Education: A Primer, Francis J. Wuest, 225 pp. (Change in Liberal Education, Kansas City, Mo.).

This report resulted from a national project to develop and evaluate alternatives to traditional patterns of teaching and learning in undergraduate liberal education. Some 30 institutions, from small and 2-year colleges to large and research-oriented universities, participated actively in the program.

The definition of liberal learning employed was essentially a definition of general education. The institutions involved followed a considerable variety of patterns in their effort to accomplish their general education objectives. In some instances, liberal education was the major purpose of a 4-year degree program; in other instances, general education was a component part of a baccalaureate program. In every instance, the participation of the selected institutions was directed toward renewal of their liberal or general education objectives: toward rethinking and evaluation of curriculum, instructional processes, and achievement.

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The process of renewal is presented around themes of motivation, energy, time, agents, institutional characteristics, and external factors. Subsequent sections of the report deal with curriculum change, the integration of purpose and practice, the exchange of renewal experience, and an agenda for renewal. The experience of four institutions (one regional state university, two private liberal arts colleges, and one community college) is reported. The report is more helpful in terms of process than in terms of design.

9:1.1/73

The Purposes and the Performance of Higher Education in the United States: Approaching the Year 2000, Carnegie Commission on Higher Education, 107 pp. (McGraw-Hill Book Co., New York).

In some respects, this report of the Carnegie Commission might be considered the most important single document among some 21 reports the Commission has issued. Acknowledging that there are both internal and external conflicts over the purposes of higher education, the Commission declares that there are five "main purposes": the development of students, the transmission and advancement of learning, the advancement of human capability, the enlargement of educational justice, and the critical evaluation of society through individual thought and persuasion for the sake of social self-renewal.

In terms of fulfilling these purposes, the Commission rates student development as generally adequate, the transmission and advancement of knowledge as superior, the advancement of human capability as superior, the enlargement of educational justice as unsatisfactory but improving, and the critical evaluation of society as uneven in the past and uncertain for the future. The Commission proposes a number of ways to improve performance: more attention to general education, more concern about the quality of the educational environment, a steadier supply of Federal research funding, a major expansion of opportunities for lifelong learning, a more determined effort to provide places in college for low-income and minority groups, and better rules and understandings to handle society's critical evaluation.

The Commission points out three major doctrinal views regarding the central purpose of higher education. One view is that higher education should be concerned with a search for and socialization of values, a view supreme in the United States before the Civil War, according to the Commission. The second view is that higher education should further the evolution of knowledge and of skill development within existing society, a view that has been dominant throughout the past century. The third view argues that higher education should prepare the way for, or assist the perpetuation of, some designated type of society. The Commission identifies this third view as the main challenge to the still dominant view as to the purpose of higher education.

See also: 12:3.0/80 **Academic Adaptations: Higher Education Prepares for the 1980s and 1990s,** Verne A. Stadtman.

1.2 Classification of Institutional Roles

9:1.2/80

An Improved Taxonomy of Postsecondary Institutions, David Makowski and Rolf M. Wulfsberg, 44 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

For 50 or more years, the National Center for Education Statistics (NCES) and its predecessor offices in the Federal Government have collected and reported data in a six-division classification covering the public and private sectors of three types of institutions—universities, other 4-year colleges, and 2-year colleges. The inadequacies of this classification have been evident to researchers and others for over 30 years. The Commission on Financing Higher Education (1949-1952) developed a different taxonomy, and a somewhat similar scheme was devised by the Carnegie Commission on Higher Education (1967-1973).

In this working paper, the two authors—one from the National Center for Higher Education Management Systems and the other from NCES—propose a modified taxonomy, based on the Carnegie model, for future use by NCES. In addition to the primary grouping of public versus private sponsorship, the authors recommend a six-fold classification, along with criteria for the assignment of individual institutions: major doctoral, comprehensive, general baccalaurate, 2-year, medical, and specialized.

Somewhat simpler than the 10 groupings used by the Carnegie Commission, the recommended taxonomy appears to be a reasonable and feasible scheme of classification according to primary mission. It is understood that the Higher Education General Information Surveys of NCES will begin to make use of this improved taxonomy.

9:1.2/76

A Classification of Institutions of Higher Education, Carnegie Council on Policy Studies in Higher Education, 126 pp. (CCPSHE, Berkeley, Calif.).

This revised edition of a volume first published in 1973 brings up to date a taxonomy of institutions of higher education useful for planning and research. The revision adds some institutions, eliminates others, and changes the category of still others.

The Carnegie classification scheme basically groups institutions by mission: doctoral-granting universities, comprehensive universities, liberal arts colleges, 2-year institutions, and specialized or professional institutions. Numbers of institutions and enrollment by type are provided for 1970 and 1976, along with the percentage of change in this period.

The classification offers several subgroupings within each general category, as well as a division between public and private governance. For 1976, each of the 3,074 campuses in the United States has been assigned to its appropriate classification. It is noteworthy that while enrollments were some 2.6 million students higher in 1976 than in 1970, the proportion of total enrollment in public institutions advanced from 74.8 percent to 78.4 percent. The proportion of students in doctorate-granting universities in that same time period declined from 31.4 percent to 27.4 percent; the proportion in comprehensive universities declined from 29.6 percent to 28.4 percent; the proportion in liberal arts colleges declined from 8.1 percent to 4.8 percent; and the proportion in specialized institutions increased slightly, from 3.4 percent to 3.8 percent. On the other hand, enrollment in 2-year institutions advanced from 27.5 percent to 35.6 percent of total enrollment.

The planning process of the roles and missions of colleges and universities will necessarily begin with a consideration of the Carnegie classification.

1.3 Profiles of Institutional Types

9:1.3/81

Urban Universities in the Eighties: Issues in Statewide Planning, Steven H. Smartt, 66 pp. (Southern Regional Education Board, Atlanta, Ga.).

Although this study by a staff member at the Southern Regional Education Board was restricted to the southern region of the United States and to case studies in just three states (Florida, Kentucky, and Virginia), the issues raised are of nationwide importance. In the expansion of higher education in the 1960's and early 1970's, state government higher education planning tended to give particular emphasis to community colleges and to urban universities. This study presents the problems to be resolved during the 1980's as urban universities achieve some degree of maturity.

The urban university as developed in the 1960's was expected to have a special mission: to enroll mostly commuting, often part-time, and older students on an open-access basis. The programs of the university—instruction, research, and public service—were expected to have an urban orientation, being concerned with and helping meet urgent urban needs. Unfortunately, the leading graduate schools in the 1960's were little disposed to produce Ph.D. graduates with this kind of urban commitment.

This study reports two kinds of conflict: (1) the conflict *within* the urban university between those faculty members and administrative officers concerned with access, as opposed to those concerned with quality; and (2) the conflict *between* the urban university and the flagship state university at the level of state government. In the case studies, the statewide competition for graduate programs and state resources is presented as particularly evident in Florida and Kentucky, less evident in Virginia.

Although the study analyzes the problem with care and insight, it offers no solution. State governments will still have to find appropriate answers.

See: 4:3.0/81 **Equal Educational Opportunity: The Status of Black Americans in Higher Education,** Institute for the Study of Educational Policy.

This report underlines two policy objectives for higher education: (1) to have the same percentage of black students in higher education as there are blacks in the higher education age groups; and (2) to provide the talented black student with educational opportunities of equal quality to those available to white students. Although acknowledging progress in black access to higher education, the report states that opportunity in terms of matching aspirations and objectives with performance and outcome is still to be achieved.

The authors express particular concern about the distribution of black students among types of institutions and about the relatively modest proportion of blacks in graduate and professional schools. The future opportunity for blacks in higher education is seen to depend on the commitment of educators and policymakers to support equal opportunity. The authors report that from 1966 to 1976, black student enrollment increased from 6.1 percent of all enrollments to 9.3 percent. They view access as a continuing problem, not a resolved situation.

The discussion of black student distribution makes use of the classification structure of the National Center for Education Statistics: (1) public-private, and (2) universities, other 4-year institutions, and 2-year institutions. The report asserts that the differences between these institutions reflect family and institutional wealth more than a separation of students by academic aptitude. The report calls attention to the concentration of black students in 2-year institutions and in less selective institutions and the concentration of black students in the disciplines of education and the social sciences, with smaller proportions in agricultre, the biological sciences, engineering, and the physical sciences. The persistence rate to degree status is reported to be less for black than for white students.

The issues for the 1980's are identified as continuing income inequality among blacks, disproportionate distribution of blacks among types of institutions, the low retention rate for blacks, and the limited enrollment of blacks in graduate and professional schools.

9:1.3/80

The University and the Inner City, W. Franklin Spikes, ed., 191 pp. (Lexington Books, D.C. Heath and Co., Lexington, Mass.).

This volume comprises nine articles that seek to set forth a mission for the urban university. At the very outset, the urban university is defined in terms of four fundamental elements: location, clientele, program, and priorities. The urban university is local and egalitarian. It receives little Federal support for research but enrolls many students who depend on Federal financial assistance. It has mostly commuting students and only a limited sense of academic community.

The authors of the first article draw a sharp distinction between the "cosmopolitan," or research, university and the "metropolitan," or urban, university. They present this contrast as four paradoxes: quality versus equality; institutional versus individual influence; elitism versus egalitarianism; and professionalism versus humanism. The faculty development program at Northeastern Illinois University is cited as a form of response to an urban mission.

Other articles in this collection focus on the use of urban resources by an urban university, the arts and humanities in an urban environment, lifelong learning in an urban setting, graduate education in an urban university, the role of the independent college in an urban community (especially the Central YMCA Community College in Chicago), cooperative education, the joint education project of the University of Southern California, and prison education.

Although quite different kinds of experience are reported in this volume, the cement that holds the university edifice together is a commitment to a concept of urban higher education that is different from the mission of other institutions of higher education.

9:1.3/78-1

Black Colleges in America: Challenge, Development, Survival, Charles V. Willie and Ronald R. Edmonds, eds., 292 pp. (Teachers College Press, Columbia University, New York).

In 16 chapters written by 21 persons, this volume sympathetically and hopefully examines the history and mission of the predominantly black colleges in the United States. The central theme is that the higher education of blacks in predominantly black colleges has provided opportunity and identity for the black minority, as well as offering evidence of moral values vital to all Americans.

Throughout the volume, the objectives of black colleges are set forth as the achievement of social justice, the reform of an oppressive social order, and service to black communities. A long-time president of a black college, Benjamin E. Mays, asserts that the black image in American has been kept alive by black colleges. With appropriate attention to a concept of quality in educational achievement, the authors see the special mission of the black college in terms of attracting, educating, and graduating black men and women who would not otherwise have gone to college.

In a part of the volume devoted to the administration, financing, and governance of black colleges, the single most perplexing problem confronting black-college presidents is identified as the concern to provide a "sound education" with limited financial resources. Black colleges have also become a major source of employment in their communities. Sherman Jones and George Weathersby call attention to the early financing of black schools by the Freedman's Bureau and by benevolent societies, the distribution of income by major sources as of 1915, and recent trends in financing of both independent and public black colleges and universities. Prezell Robinson suggests five guidelines for the effective management of scarce resources, beginning with careful formulation of the mission and goals of each institution.

In a section focused on teaching and learning in the black college, black students are said to regard higher education as an effective economic tool for improved material status. The black-college teacher is looked upon as a symbol of success and upward social mobility. The objective of the black-college teacher is one of transforming "high-risk" students into community and vocational leaders. Various chapters are concerned with teaching in the social sciences, sciences, humanities, and English.

The overall conclusion to the volume, as stated by Charles Willie, is that black colleges in the United States are a vital national resource.

9:1.3/78-2

The Community and Junior College, Collins W. Burnett, ed. 147 pp. (College of Education, University of Kentucky, Lexington).

This compilation of articles about the 2-year community college summarizes current knowledge about the largest and most rapidly growing sector of the higher education system in the United States. If 2-year institutions attached to 4-year colleges and universities are included, 2-year institutions as of 1977 had some 36 percent of all student enrollments, more than such other sectors as doctoral-granting universities, comprehensive universities, baccalaureate colleges, and specialized colleges and seminaries.

Several subjects are reviewed in terms of the available research findings: the history of the private junior college, foreign adaptations of the American community college, the contrasting experience of "native" and transfer students in obtaining a baccalaureate, the transfer problem between 2-year and 4-year institutions, and faculty characteristics in the 2-year college.

A particularly useful chapter describes the student personnel program in a community college. The outline of a comprehensive program drawn from various studies presents a vivid portrait of how the community college seeks to serve its unique student body.

Only one instructional program of the community college is discussed in the volume—the program in allied health technologies. The absence of attention to instructional programs, instructional objectives, and curriculum detracts from this otherwise valuable summary.

9:1.3/76

The Regional State Colleges and Universities in the Middle 1970's, Fred F. Harcleroad, Theodore Molen, Jr., and Suzanne Van Ort, 103 pp. (Higher Education Program, University of Arizona, Tucson).

This study is the third and most recent report on the growth and expansion of regional state colleges and universities. In general, the institutions identified as regional state colleges and universities are the 324 institutions comprising the American Association of State Colleges and Universities. The Association cooperated in developing the data presented in these reports. The objectives of the reports are to describe, for the decade 1966 to 1976, general institutional changes; institutional characteristics in enrollment size, program offerings, and financial support; prevailing patterns of administrative organization; and the development of plans for future program endeavors.

For the most part, regional state colleges and universities are reported to be of two kinds: former teachers colleges that have expanded program mission and enrollment, and urban universities meeting a variety of urban higher education needs. The studies develop a useful two-dimensional framework for classifying higher education institutions, both by level of degree programs (associate, baccalaureate, master's, and doctoral), and by program orientation (applied vs. theoretical).

This report (covering 1975 data) indicates continued enrollment growth (especially in graduate programs), expansion of technical and professional programs other than those of teacher education, increased attention to new and innovative instructional programs, some improvement in library holdings, stability in student/faculty ratios, an increase in per student expenditures, and increases in income from student fees, primarily in the midwest and northeast regions of the United States.

All three of these reports on regional state colleges and universities set forth the relative state of well-being for an important and often overlooked segment of public higher education. Moreover, the mission, program offerings, and enrollment size of these particular institutions will become major planning problems for the 1980's.

9:1.3/72-1

Education and Evangelism, A Profile of Protestant Colleges, C. Robert Pace, 123 pp. (McGraw-Hill Book Co., New York).

In this study, conducted for the Carnegie Commission on Higher Education, the author found that there is no short, direct answer to the question: What is a Protestant college? Protestant denominations have founded over the years more than 1,000 colleges in the United States, and about 600 of these were still operating in the 1960's. Some Protestant colleges and universities have become nonsectarian in affiliation. Others are relaxing their denominational ties. A third group continues its relationship to major denominations, but the denominations themselves have become less evangelical. A fourth group consists of colleges related to evangelical and fundamentalist churches. Using data from a sample of 88 such colleges, the author drew a profile of Protestant colleges.

In terms of environment, the author found that the evangelical and fundamentalist colleges are more homogeneous than other denominational Protestant colleges or comparison groups. The Protestant colleges tend to have a considerable sense of community, to observe standards of decorum, and to be somewhat less committed to ideals of scholarship than comparison institutions. The sense of religious commitment is strongest within the evangelical and fundamentalist colleges and somewhat evident in the "mainline" Protestant colleges.

The author concludes that there is no typical Protestant college student or alumnus. The colleges tend to be somewhat small in enrollment size, to be friendly places, to be occasionally innovative, to be residential, to have increasingly permissive social regulations, to be uncertain about religious faith, and to be increasingly moralistic in attitude toward social and economic problems.

9:1.3/72-2

The Home of Science: The Role of the University, Dael Wolfle, 201 pp. (McGraw-Hill Book Co., New York).

This study, prepared for the Carnegie Commission on Higher Education, maintains that the American university at the end of the nineteenth century became the principal home of science and research activities. The author proposes that this development was not the conscious determination of some planning body but the consequence of interrelated intellectual and economic influences.

The author traces four major themes: the professionalization of science, the search for sponsors, the selection of the university as the appropriate location of professional scientific endeavor, and the development of the university's commitment to graduate study and research. The impact of science on higher education is identified as fourfold: the breakup of the college tradition, encouragement to specialization in the humanities and social sciences, institutional fragmentation and dispersal of power, and interinstitutional competition. The experience of World War II and the increased involvement of the Federal Government in the growth of university science necessarily is a major part of the story. Research support of university science grew from $300 million in 1953 to over $2.6 billion in 1973, with 60 percent of this support coming from the Federal Government.

The author also gives careful attention to the rationale for university research activities as a key function in scientific study. One justification is that practical applications of knowledge can have social benefits. Another is that science is the new frontier for humanity to explore. It has even been suggested that scientific research is the modern equivalent of Egypt's pyramids or the medieval cathedral. Unfortunately, the author states, it is not easy to formulate the university rationale. The convincing argument is the expectation of social benefit; the conviction is weakened when the expectation is not fulfilled. In turn, there is the question about government rationale in supporting university research: national defense, international prestige, social benefit. University research has become government dependent. Government support seeks national objectives, a national interest, still to be clearly identified, advocated, and realized.

9:1.3/72-3

The Invisible Colleges: A Profile of Small, Private Colleges with Limited Resources, Alexander W. Astin and Calvin B. T. Lee, 146 pp.

Declaring that colleges and universities in the United States have evolved into a "highly refined" hierarchy consisting of a few elite institutions, a substantial middle class, and a large number of relatively unknown institutions, the authors of this study sought to describe this third group—the one-third of all 4-year institutions comprising the little-known private colleges. Although the term "invisible" was considered by some as pejorative, the authors had two primary characteristics in mind: a relatively low degree of student selectivity for admission and relatively small enrollment size. In general, the criteria for defining the type of institution described were SAT composite scores below 1,000 and enrollment size below 2,500.

In the report prepared for the Carnegie Commission on Higher Education, the authors present a brief historical sketch of the invisible colleges. Among administrative characteristics, the invisible colleges were found primarily in the midwestern regions; tended to have religious affiliations; included most of the private, predominantly black colleges; tended to have lower annual tuition charges to students; tended to have a smaller proportion of faculty members with doctoral degrees; and had modest endowment resources per student. Data about student characteristics, learning environment, and educational effects are included.

The authors conclude that the problems of the invisible colleges are qualitatively different from those of the elite colleges. They state that there is no strategy for the survival of these colleges that does not jeopardize their small size or their private status. The most important attribute of the invisible college is identified as its small size. These colleges are educationally useful in serving a student body not equally well served by the elite private college or the larger public college or university. The authors assert that the invisible college in general has justified its existence and has in large measure been ignored or overlooked in State and Federal government planning. Increased enrollment size is given as an imperative, as well as curriculum development more nearly consistent with the actual educational mission of the institution.

9:1.3/71-1

Between Two Worlds: A Profile of Negro Higher Education, Frank Bowles and Frank A. De. Costa, 326 pp , (McGraw-Hill Book Co., New York).

In this study for the Carnegie Commission on Higher Education, the authors set out to describe and analyze the condition and role of the historically Negro college. They found that, by the late 1960's, these colleges no longer held the pre-eminence they once did for the black student. During a 50-year period in the South, black colleges were the sole custodian of black literacy, black history, and black aspirations. Moreover, the principal professional opportunity open to black graduates was to teach in black elementary and secondary schools. However, opportunities for black access to a wide variety of colleges and universities expanded substantially in the 1960's. By the end of the 1960's, it was clear that the unique role of the historically Negro college to provide educational opportunity for black students had ended. No longer bound by its traditional mission and obligation, the historically Negro college became free to undertake a new role. Exactly what this new role would be remained uncertain.

After a substantial presentation of historical, statistical, and descriptive data, the authors turn to speculation about the future. Obviously, the world of higher education for black students is in transition. Should students be prepared to participate in black society or in an integrated society? Whatever the objective, will the educational needs of black students be better met in a segregated or integrated learning environment? How can the competence of black students to compete with white students be advanced? How can the deficit of professional blacks be most rapidly and effectively reduced? Like others, the authors have no precise answers to these complex issues.

The authors assert that there remains a mission for the historically Negro college to perform: to take students of poor preparation, to fit them into appropriate educational programs, and, in time, to qualify them for a professional position within the black community or a permanent position with a reasonable future in the white community. Finally, the authors urge that public policy and public programs assist the predominantly black college in fulfilling this mission.

9:1.3/71-2

Breaking the Access Barriers: A Profile of Two-Year Colleges, Leland L. Medsker and Dale Tillery, 183 pp. (McGraw-Hill Book Co., New York).

Co-authored by a leading proponent of the community college, this study sponsored by the Carnegie Commission on Higher Education is both an account of and an explanation for the phenomenal growth of 2-year colleges in the 1960's. The authors assert that three principal factors were involved in the expansion: the increased demand for technically educated personnel in American business and government; the increased governmental financing available to veterans and others with which to meet the personal costs of going to college; and the aspiration of individuals to know more about themselves and the world of which they are a part. Statistical data of various kinds are used to demonstrate the facts of growth.

The authors give considerable attention to a statistical profile of the community college student. In terms of academic ability, the student tends to fall in the second and third quartiles, just above and below the median. The family income corresponds similarly. Few community college students are of high academic ability and high family income, but few are of low academic ability or low family income. Although about two-thirds of community college students intend to transfer to a 4-year program, only about one-third actually do so. Only about one-third of all newly enrolled students complete a 2-year instructional program.

In terms of instructional programs, the authors stress the tendency of 2-year colleges to offer a wide variety of opportunities, especially in career education. The discussion of developmental or remedial education anticipated but could not fully forecast the experience that occurred in the 1970's.

There can be no doubt that the community college in the 1960's achieved a central role in American higher education. That role involved a promise of educational achievement, career development, and community service for a whole new class of citizens. From the perspective of the 1980's, this promise seems largely to have been fulfilled.

9:1.3/71-3

Models and Mavericks: A Profile of Private Liberal Arts Colleges, Morris T. Keeton, 191 pp. (McGraw-Hill book co., New York).

In an effort to provide a rationale for the private college, the author of this study for the Carnegie Commission on Higher Education argues that these institutions could relieve the burden of overcrowding in public institutions and could "undertake ventures in qualitative achievement." Qualitative achievement is identified in terms of three perspectives: the freedom to orient student life and a curriculum to a particular religious or philosophical point of view, the opportunity for unique instructional achievements, and the freedom to undertake socially useful but often risky innovation.

One chapter discusses the idea of quality based upon distinctive philosophy. Another chapter develops the idea of quality based upon distinctive resources. Still a third chapter presents "vignettes" of five "excellent colleges."

The author then argues persuasively for a public policy aimed at preserving and fostering a "dual system" of higher education. The elements of a desired public policy are presented as grants and loans to individual institutions, support of institutions in meeting the costs of an expanded enrollment, and extended support for construction and special programs. The author also insists that private colleges should realign their authority relationships, improve internal communication, and strive for greater decentralization of management.

9:1.3/70

The Upper Division College, Robert A. Altman, 202 pp. (Jossey-Bass, San Francisco).

This book traces the historical development of upper division colleges and universities established to draw students from public community colleges. To supplement and extend the community college system, state planners and state governments identified particular places in their states where upper division colleges or universities should be established. The total number of such universities at the time of the study was about 15, concentrated largely in Florida, Illinois, and Texas. The mission of these institutions was to achieve an articulation with 2-year campuses and to meet regional needs for baccalaureate and master's degree instructional programs.

Since most upper division colleges were established in the 1960's, the author has only a relatively brief history to report. He describes some of the early operational difficulties, but overlooks the reluctance of faculty members newly recruited from graduate schools to accept and implement the institution's mission. In some instances, the enrollment proved to be less than planners had anticipated, for reasons that deserve much more attention than has been given to the subject.

9:1.3/69-1

Colleges of the Forgotten Americans: A Profile of State Colleges and Regional Universities, E. Alden Dunham, 206 pp. (McGraw-Hill Book Co., New York).

The colleges and universities examined in this study, sponsored by the Carnegie Commission on Higher Education, are essentially of two kinds. One is the teachers college, which evolved in the 1950's and 1960's into a comprehensive university, adding more courses in the arts and sciences and new professional schools (mostly of business and fine arts) to a curriculum previously preoccupied with the professional education of teachers. The second is the state urban university, newly created or newly transformed from some earlier sponsorship in order to expand the opportunities for higher education.

The author makes clear that the colleges and universities he describes have indeed been varied in their history, their performance, and their expectations. What the colleges and universities have in common is public sponsorship, new program ideas or new concepts of service, and the lack of prestige and status associated with older state universities and selective private colleges and universities. The colleges and universities Alden portrays are the institutions that absorbed most of the great enrollment expansion of the 1960's, only to give way in the 1970's to the continued growth of community colleges.

One consequence of a changing mission for state colleges and universities in the 1950's and 1960's was the impetus to create state boards of higher education to keep program expansion under control. Another consequence was the appearance of multicampus governing boards inherited from the days when a single state board of education operated several different teachers colleges. These consequences are not explored in the volume. The author already had a substantial task in sketching student characteristics, faculty expansion and aspiration, program proliferation, and administrative styles in this new kind of higher education institution.

9:1.3/69-2

From Backwater to Mainstream: A Profile of Catholic Higher Education, Andrew M. Greeley, 184 pp. (McGraw-Hill Book Co., New York).

Some 350 of over 2,800 institutions of higher education enumerated by the Carnegie Commission in 1968 were related to the Roman Catholic Church. Yet there was diversity in organization and operation under this heading, rather than a massive, smoothly organized, and efficient monolithic structure. There were, of course, similarities. The Catholic colleges and universities were generally established by various religious orders of the Church, usually presided over by priests or nuns, subsidized in some measure by contributed services, committed to the Catholic faith, and founded primarily to provide higher education opportunity to Catholic immigrants in the large cities of the United States.

Of the 350 institutions identified in the study, more than 100 had been founded after 1950. These newer institutions tended to be junior colleges or colleges for women. A considerable portion of the colleges founded for men prior to 1950 were no longer in existence.

In various ways, the distinctive religious objectives of the Catholic college have been altered by the increasing participation of Catholics in the mainstream of professional, managerial, and technical positions in American society. As some Catholic youth entered nonsectarian and public institutions of higher education, the Catholic institution did not dare to offer educational opportunity of a lesser quality. And the urban location of the Catholic university encouraged a non-Catholic student enrollment in many professional programs. Increasingly, the Catholic institution has been challenged to determine what is distinctive about Catholic higher education.

The Catholic institution has found itself beset in recent years by rising costs, an increasing proportion of lay faculty members, difficulties in recruiting competent and effective top-level administrative personnel, expanded public higher education opportunities in urban areas, and questions of relationship to community and Church.

9:1.3/69-3

The Liberal University: An Institutional Analysis, J. Douglas Brown, 263 pp. (McGraw-Hill Book Co., New York).

This book, by the dean emeritus of faculty and former provost of Princeton University, was written: "...to analyze the purposes, organization, policies, and the processes of a particular type of university; that is, the 'liberal university' as later defined. In this analysis, the aim has been to keep constantly in mind the inter-relations, tensions, and interactions normally present in the operation of an institution which must be responsible to many categories of constituents. The emphasis is, therefore, upon *how* these various elements and interests can be brought into moving equilibrium in advancing the mission of the institution."

As viewed by the author, the key attributes of a liberal university are that it is person-centered rather than knowledge-centered; value-centered rather than neutral of or divorced from values; concerned with fundamental knowledge and its integration; given to emphasizing independent study and individualized instruction; and prone to encouraging individual freedom and promoting individual responsibility. Working from this description, the author discusses the constituent elements, functioning, and problems of a liberal university in the following sequence: organization, the presidency, the faculty, the administration, the trustees, the students, and the alumni. Attention is directed principally toward policies and administrative arrangements that can form a consistent whole. Some of the most rewarding chapters (in later sections of the book) deal with issues concerning academic policy, questions of economy and control, and problems of external relations.

The author draws on 21 years of experience as dean and provost and earlier specialization in the study of industrial relations and organization to provide a wealth of observation and analysis. Among the topics covered are academic freedom and tenure, the relation between teaching and research, the role of the university press, the optimal size of enrollment, the control of subject specialization, the control of sponsored research, and faculty salary policies and procedures.

1.4 Planning Distinctive Missions

4:2.0/82

Selected Topics in Graduate Education, Martha Romero, est. 50 pp. (Council of Graduate Schools in the United States, Washington, D.C.).

This annotated bibliography reviews published material on selected issues in graduate education, including the assessment of quality as evidenced in faculty evaluation, program evaluation and self-assessment measures within graduate schools, minorities, and nontraditional students. Citations are given on publications pertaining to doctoral degrees other than the Ph.D., on mid-career changes for academics, and on university partnerships with government and industry. The bibliography, which includes material published from 1977 to 1982, will be available in Fall 1982.

See: 4:2.0/81 **Adults as Learners,** K. Patricia Cross.

The author insists that lifelong learning is necessary for everyone. The goal of a learning society is service to individual learners. The subject of this study, reviewing literature and theory, is the adult as a learner.

The early chapters deal with the recruitment of adult learners, with adult participation in learning activities, and with the motivation for adult learning. The author proposes her own chain-of-response modal to advance the understanding of adult motivation. In a summary chapter, the author identifies two basic kinds of learning: self-directed learning and participation in organized instruction. Later chapters are concerned with patterns of adult learning and development, what adults want to know, and how to facilitate adult learning.

This study provides a convenient handbook about our knowledge of adult learning and about the problems involved in promoting adult learning through a college or university setting.

See: 16:2.0/81 **The Characteristics and Needs of Adults in Postsecondary Education,** Lewis C. Solmon and Joanne J. Gordon.

This study was undertaken in an effort to underline the special needs and characteristics of adult students, defined as those over 21 years of age. The authors maintain that, if colleges and universities are to seek out and serve this nontraditional age group, they will have to modify traditional modes of teaching and learning.

Using data from the Cooperative Institutional Research Program, the authors report an increasing proportion of freshmen students over 21 years of age. These students tend to be part-time, women, increasingly drawn from minorities, unmarried, and disadvantaged in terms of parental educational attainment. The greatest concentration of adults is found in public community colleges, partly because of access and partly because of low cost. The authors also note that: financing a college education is a major concern for adult students; adult students tend to be poorly prepared for college study; degree aspirations are relatively modest but advancing; and the major interest is employment-related.

The implications of the increasing number of adult students for college instruction and institutional services are pointed out in a concluding chapter.

See: 4:2.0/80-2 **Adult Development: Implications for Higher Education,** Rita Preszler Weathersby and Jill Mattuck Tarule.

In this research report, the authors present a range of research in adult development as the basis for the beginning of programs in adult education. They acknowledge that adult development is just emerging as a field of study and that the research drawn from many disciplines is incomplete and lacks a unifying theory. They review life-cycle stages and hierarchical sequences of development.

A final and somewhat brief section suggests the application of knowledge about adult development to programs of higher education. The authors point out that development is expected to be a major outcome of students' experience. They suggest that education can be important as a supportive factor for individuals in life transitions and that program planning must be undertaken in terms of groups of persons to be served and an awareness of their needs. They link adult development research with improved instructional procedures, and they advocate expanded services in career planning, counseling, and individual support.

9:1.4/80-1

Assessing the Needs of Adult Learners: Methods and Models, Lynn G. Johnson, ed., 71 pp. (Ohio Board of Regents, Columbus).

This collection of five papers is concerned with procedures for assessing the educational needs and interests of adult students. The first paper, written by K. Patricia Cross, discusses the state of the art in needs assessment. The other four papers resulted from a nationwide competition to find exemplary models of actual assessment efforts. The winning papers—submitted by persons at Springfield (Massachusetts) Technical Community College, the University of Illinois, Holy Name College (California), and the New York State Department of Education—cover the assessment of needs of adult women, the assessment of needs for a baccalaureate completion program in nursing, efforts to determine interests of adult learners in the inner city, and the development of a continuing statewide information system on adult learners.

The papers report the results of particular surveys and provide illustrations of the survey instruments employed. For example, the New York study found that the major fields of interest for adult learners are arts and crafts, physical fitness, sports and games, home decorating, and gardening. The most important barriers to continuing education are home responsibilities, the cost of tuition, and inconvenient class schedules.

A final section of the report presents guidelines for implementing needs assessment, and the report includes an annotated bibliography on needs assessment.

9:1.4/80-2

Integrating Adult Development Theory with Higher Education Practice, Current Issues in Higher Education No. 5, 26 pp. (American Association for Higher Education, Washington, D.C.).

The AAHE here presents two papers—by Arthur W. Chickering and by L. Lee Knefelkamp—that examine whether theories of adult development provide an organizing purpose for higher education. Chickering argues that adult development must encompass a concern for international collaboration, the need for institutions' promoting individual and collective well-being, and an integration of theory and practice (liberal learning and career education). He believes that life-cycle challenges can be effectively linked with learning processes, but that the relationship is more of a statement of faith than a map of direction.

Knefelkamp addresses a quite different concern—that for renewing the concept of a community of scholars as the objective of faculty and student development during the 1980's. He pleads for an affirmation of a total educational purpose, a recognition of mutual need, and a commitment to continued endeavor in spite of conflicts.

9:1.4/80-3

The Philosophy and Future of Graduate Education, William K. Frankena, ed., 259 pp. (University of Michigan Press, Ann Arbor).

This volume brings together papers and commentaries delivered at an international conference on the philosophy of graduate education held at the University of Michigan in 1978. Nine of the twelve papers were written by Americans; the other three papers were written by a Jugoslav, an Australian, and a Britisher.

Insofar as there is a philosophical issue for graduate education to resolve, it appears, from these papers, to center on whether graduate education should be highly specialized in content and method: Is the primary purpose of graduate education, especially at the doctoral level, the education of a research scholar? Or is the primary purpose to encourage the development of competencies and interests broader than research specialization?

Does graduate education adequately prepare scholar/teachers whose primary role may become the education of undergraduate students?

None of these questions is new. The purpose of graduate education has been much debated, argued, and written about for over 20 years. Although there are no new answers in these papers, there are certain additional perspectives, especially in the papers presented by Sterling McMurrin, Kenneth Boulding, Laurence Veysey, and Howard Bowen.

It seems evident that the purpose of graduate education met certain social expectations as formulated by political and other agencies during the 1950's and 1960's, and that these social expectations still had some but a lesser vitality in the 1970's. There may be some ferment in the 1980's that may bring about some change. But the papers here studiously avoid one major practical matter, the costs of graduate education, except as the matter is raised incidentally in the paper by William Miller.

9:1.4/80-4

Science and Technology: Promises and Dangers in the Eighties, President's Commission for a National Agenda for the Eighties, Panel on Science and Technology, 97 pp. (U.S. Government Printing Office, Washington, D.C.).

President Carter's Commission for a National Agenda for the Eighties, appointed in October 1979 and consisting of 45 prominent citizens, issued a general report entitled *A National Agenda for the Eighties,* along with nine panel reports. In its general report, the Commission states its belief that the "topic" of higher education is important, but explains that it did not have the resources to examine the issue "thoroughly." However, two of the nine panel reports—those on social justice and on science and technology—do take up the subject of higher education.

The panel report on science and technology stresses two primary concerns: increased support for research and development in the natural sciences and the social sciences, and better understanding of science and technology. The one concern speaks to graduate education and research by leading research universities; the second speaks to the need for a general education within all higher education in order to ensure that the social regulation of science and technology is performed intelligently. The panel comments about the close relationship between the health of the economy and the health of the scientific enterprise. Its report identifies four major challenges for science and technology: (1) limited resources, (2) a changing world order, (3) the role of technological innovation in reshaping American society, and (4) the complex interrelationship between science and society. The panel reports that universities perform over half of all basic research in the nation, and mentions three case studies on interaction between science and society: the nuclear power question, recombinant DNA technology, and information storage and access. The panel calls for better education about the nature of science and technology in order to develop science literacy and to increase a public awareness of probability, risk, and uncertainty in the development of future technologies.

See: 14:3.0/80-3, 14:3.0/80-5, 14:2.0/80-4, 14:3.0/80-2, 14:2.0/80-6
Research Accountability: Restoring the Quality of the Partnership; Review Processes: Assessing the Quality of Research Proposals; Funding Mechanisms: Balancing Objectives and Resources in University Research; Industry and the Universities: Developing Cooperative Research Relationships in the National Interest; and Research Personnel: An Essay on Policy, National Commission on Research.

The National Commission on Research was established in 1978 to examine the relationship between government agencies and universities. The Commission was sponsored by the four associated research organizations, the Association of American Universities, and the National Association of State Universities and Land-grant Colleges, and was financed by grants from five private foundations, the National Science Foundation, and the U.S. Air Force. The Commission consisted of 13 persons drawn from research universities, the American Association for the Advancement of Science, two private corporations, and the Woodrow Wilson Center for Scholars. These five reports published by the Commission in 1980 present its general findings and recommendations.

The first report, *Accountability: Restoring the Quality of Partnership*, states that the research universities and the government are not working together as well as they should. The Commission thus recommends: (1) vigorous, concerted action to overcome mutual suspicions and misunderstandings; (2) development of a new system of accountability appropriate to the nature of the activity and based on a set of minimum core requirements; (3) revised Federal cost and management principles; and (4) the integration of technical review and financial audit of project performance. Other recommendations include more self-regulation of research work assignments, a new approach to indirect costs, university review of research financial management, greater flexibility in fund management, and better processes of project accountability.

The Commission's second report, *Review Processes: Assessing the Quality of Research Proposals*, is concerned with the review of project proposals and the award of project funds. The Commission concludes that some diversity of review processes is appropriate, provided equality of opportunity is preserved and the quality of awards is high. While recognizing criticisms of peer review, the Commission states that the system had worked well, that open competition in the submission of proposals is desirable, and that the selection of proposals through peer review should be retained. Several recommendations are made for improvements in the review process.

The third report, *Funding Mechanisms: Balancing Objectives and Resources in University Research*, covers grants, cooperative agreements, and contracts. The Commission reports that various Federal agencies appear to have different interpretations of and attitudes toward these funding arrangements. Among other problems, the Commission identifies a rapidly developing obsolescence of research equipment, inadequate provision for new research initiatives and for sustaining research capacity, and the erosion of institutional support for research in the humanities and social sciences. Funding procedures are characterized as lacking continuity, stability, and flexibility, and the cost-sharing requirement is found to stimulate paperwork and controversy. The Commission observes the advantages of continuing to combine teaching and research, but speculates about the possible decline in young scientists available for research activities. Some 16 general recommendations address these issues, including one that universities examine more carefully the implications involved in the development and growth of university-associated research institutes.

The fourth report, *Industry and the Universities: Developing Cooperative Research Relationships in the National Interest*, departs from the theme of university-government relationships to urge more extensive university-industry cooperative research. The Commission urges the Federal government to facilitate this relationship by providing financial incentives and by permitting universities to retain title to inventions developed under federally supported research.

The fifth report, *Research Personnel: An Essay on Policy*, deals with the national need for an ample pool of research scientists. Rather than submitting recommendations, the Commission offers 13 questions for further discussion and resolution by government and the universities. These questions include such issues as: the way science is introduced to elementary and secondary school children; the science requirements for college students; the numbers of "well-prepared" scientists needed at the start of the next century; access to scientific careers for all sectors of society; the distribution of research effort between universities and other agencies; the role of universities in the "whole" formal education of scientists; and the state of general access to research results.

These reports provide the most extensive review of the university-Federal Government relationship in research undertaken since the end of World War II.

9:1.4/79

The Impersonal Campus, Virginia B. Smith and Alison R. Bernstein, 137 pp. (Jossey-Bass, San Francisco).

The authors of this volume, who formerly served with the Fund for the Improvement of Postsecondary Education, are concerned with finding alternatives to what they consider to be the impersonal campus. Specifically, they ask the question: Is there a clear relationship between the size of a college or university and the learning outcomes? Their conclusion is that there is no simple relationship between size and quality. Yet they insist that certain types of learning tend to suffer in a "massive institution."

The authors begin their discussion by reviewing the enrollment growth and the expanded size of colleges and universities between 1950 and 1974. They observe the various reasons given for increased size, but remain skeptical about their validity. They argue that concerns for student development, instruction, and institutional "climate" have been overlooked in the rush for expansion.

In enumerating alternatives to size, the authors consider consortiums, cluster colleges, individualized instruction, consumer information, support services, and "alternative" colleges. In a concluding chapter, they argue for both more research about the impact of size and more faculty-administrative attention to the impact of size and process upon learning. Clearly, the authors are convinced that small is beautiful in higher education.

See: 37:2.0/77 **Career Education in Colleges,** Norman C. Harris and John F. Grede.

In this guide for planning 2- and 4-year occupational programs for employment, the authors argue that the conflict between "education for life" and "education for a living" is no longer meaningful. They view career education as a new object—the new unifying force for higher education.

The first part of this volume presents a discussion of change in higher education prospects, in students' attention to career opportunities, in the composition of the labor force, and in the institutional settings for career education. The second part presents a discussion of career education in business, engineering and technology, allied health fields, public service, and the liberal arts. The third part deals with the planning, financing, management, and governance of career education.

It is understandable if the authors tend to give more attention to the community college than to 4-year baccalaureate programs in the light of their own experience and expertise. Yet much of what they have to say is as applicable to education for the bachelor's degree as it is to education for the associate degree. The observations and insights are worth careful attention in both 2-year and 4-year institutions. But those educated in the arts and sciences during the 1950's and 1960's will find it difficult to accept a supportive role to career education. Change is not all that easy for faculty members committed to a particular intellectual tradition.

See: 34:1.0/77 **The Future of Adult Education: New Responsibilities of Colleges and Universities,** Fred Harvey Harrington.

In this volume, the former president of the University of Wisconsin looks at the education of adults as one part of the mission of higher education. The author asserts that "the day of the adult is coming to higher education in the United States, if it is not already here." The largest and most successful adult education enterprise has been agricultural extension. This experience, along with other efforts, provides a backdrop for future planning.

The author's approach is eclectic. Considering the not-too-reassuring record of adult education through on-campus courses for credit, he reviews new opportunities for off-campus credit programs. Continuing professional education and continuing general education for adults are additional program interests and possibilities he examines. His review of agricultural extension gives way to the uncertainties of urban extension. Finally, he fits higher education's obligations to the disadvantaged into the portrait.

The problems of program focus are considered in the framework of academic administration and financial management—concerns that no academic planner or administrator can ever ignore. The list of recommendations for action are timely and persuasive.

Higher education has new opportunities to expand its endeavors in two important directions: the enrollment of nontraditional students in degree programs, and the expansion of continuing education for adults. In considering these new opportunities, no institution can afford to ignore the practical experience and the practical advice set forth in this volume.

9:1.4/75-1

Outlook and Opportunities for Graduate Education, National Board on Graduate Education, 73 pp. (National Research Council, Washington, D.C.).

Appointed in 1971 by the Conference Board of Associated Research Councils, the now defunct National Board on Graduate Education sponsored a number of studies and issued several reports intended to counteract an apparent diminution of public interest and public support for graduate education. This volume, the National Board's final report, is a summary of some 4 years of study and discussion.

The report calls attention to the rapid expansion of graduate education during the 1960's and asserts that graduate education can be only as sound as the universities within which it is administered. The total financial condition of a university is identified as determining the quality of graduate programs. The problems confronting graduate education within the university context are enumerated as general financial retrenchment, a lower national priority for research, reduced labor market demand for Ph.D.'s, almost stable Federal Government support in terms of dollars of constant purchasing power, and state government concern about graduate education planning.

In looking to the future of graduate education, the National Board gives particular attention to reduced labor market demand, reduced graduate student support, and the problem of access for women and minority students. The Board recommends that planning for graduate education be based on the fundamental changes occurring in the 1970's, since these will affect higher education performance in the 1980's.

9:1.4/75-2

The States and Graduate Education, Education Commission of the States Task Force on Graduate Education, 29 pp. (ECS, Denver).

This report represents an effort to provide guidelines to state governments in their planning for graduate education. The task force begins with two assertions: that graduate education is essential to the welfare of the states and the nation, and that the primary responsibility for providing graduate educational opportunity—including support of public universities—rests with state governments. The report proposes an effective institutional, state, and Federal partnership in graduate education.

The task force urges coordinated planning for graduate education. Such planning should include multiple sources of support: primary support of graduate education in public universities by state governments, effective use of available resources, and Federal Government support of basic research and graduate students. The report recommends strengthened state government planning for graduate education, including a concern for unique resources, student accessibility, response to employment needs, and the development of new "and imaginative" programs of graduate education.

State planning should develop clear statements of goals and objectives for graduate education by the institutions of the state and effective qualitative and quantitative criteria for the elimination of some programs and the approval of others. The report acknowledges the difficulty in developing and applying such criteria, but does not offer any particular suggestions about how to approach the task or about appropriate kinds of criteria to employ. Other recommendations deal with graduate programs, comparable cost data, the assessment of benefits, and regional planning.

The Education Commission of the States task force report is a reaffirmation of faith in graduate education, and it is useful in counteracting a current public inclination to belittle the importance of graduate education in general. Moreover, the report presents a realistic outline of institutional, state, and Federal roles in planning for graduate education. But it does little to advance planning and decisiomaking about the critical issues of graduate education: what kinds of graduate programs should a state support, what should be the desirable enrollment size and resource requirements for graduate instruction, what should be the geographical distribution of graduate programs, and what institutions should be assigned the mission of graduate education at the Ph.D. level?

9:1.4/75-3

Vocational Education: Alternatives for New Federal Legislation, Pamela H. Christoffel, 57 pp. (College Entrance Examination Board, New York).

This study, prepared in advance of the 1976 amendments to and extension of the Vocational Education Act of 1963, clearly delineates the issues of Federal and state government planning in an important program area of postsecondary education: career or technical education beyond the secondary school level. The original 1963 law applied to both secondary vocational education and postsecondary technical education. At the same time, state planning and management of the program was restricted to a sole state agency, which in most instances was a state board of vocational education or a state department of education having authority over secondary education but not over public higher education.

In 1976, higher education associations made an effort to change the vocational education law at the Federal Government level in order to increase the proportion of funds allotted to postsecondary technical education, to eliminate the sole state agency requirement, and to permit delivery of technical education programs by a range of public higher education organizations, including community colleges, technical institutes, and state universities. Although these proposed modifications were largely ignored in the final 1976 law, some concessions were made involving increased higher education involvement in state planning for so-called vocational education, including technical education.

Although this study addresses specific issues of 1976 legislation, the problem areas enumerated continue to be troublesome and to perplex both Federal and state government planning for secondary vocational education and postsecondary technical education. Government planning must still cope with the program problems and the problems of institutional mission presented in this study and generally not resolved by the 1976 legislation.

9:1.4/74

Adapting Universities to a Technological Society, Eric Ashby, 158 pp. (Jossey-Bass, San Francisco).

In this essay, a distinguished British educator presents the thesis that universities have not adapted themselves sufficiently or adequately to the environment within which they perform their services. He characterizes universities as congregations of faculty members committed to the pursuit of their own intellectual interests, free from external social and political pressure. At the same time, he points out, society is confronted with urgent problems: poverty, unemployment, inadequate health care, environmental pollution, and national defense.

The author argues that conflict between university and society is not preordained. He believes that faculty members can pursue both intellectual and practical objectives without subverting the tradition and the commitment of the university. Moreover, he is convinced that modern technology represents the hope, not the curse, for the future of a progressive society. He is even inclined to believe that technology can improve the learning process.

It is apparent throughout the discussion that Eric Ashby is drawing heavily on his own experience as a scientist and as an administrator within a university of the United Kingdom. His observations about science, technology, faculty members, students, and academic administration present a cogent description of conflict in purpose as this situation emerged in his country after 1945. Yet the comments are not without general relevance to universities that have inherited or adapted the intellectual tradition of Western society.

9:1.4/73-1

Scholarship for Society, Panel sponsored by the Graduate Record Examination Board of the Council of Graduate Schools in the United States, 60 pp. (Educational Testing Service, Princeton, N.J.).

This report evaluates the urgency of a need to change the basic characteristics of American graduate schools. The report begins with the assertion that the demands made on graduate schools have been contradictory in nature. On the one hand, there have been complaints that graduate schools have been inflexible in their standards, unimaginative in developing optional styles of study, and remote from the realities of social expectation. On the other hand, there have been complaints that graduate education lacks adequate standards of performance, is expanding into too many fields and too many institutions, and is too oriented toward practical needs.

The report urges a "reasoned response" to these various criticisms. After presenting a historical perspective on graduate education expansion and retrenchment, the report pleads for a "sound philosophy of change." The recommendations urge a clarification of mission among graduate schools, increased recruitment of women and minority students, greater attention to nonacademic experience as a resource for learning and teaching, a broader definition of faculty qualifications to particiapte in graduate education, enlarged use of new instructional media, periodic review of the state of knowledge in each discipline, and increased attention to planning to meet environmental change.

Although this report appears to be addressed primarily to institutional planners and largely ignores state and Federal planning in relation to graduate instruction and research, it makes one particularly important contribution. It acknowledges that there might be differential missions in graduate instruction and research, it makes one particularly important contribution. It acknowledges that there might be differential missions in totally oriented to the standards of research eminence...."

9:1.4/73-2

The University in an Urban Environment, Nicholas Abercrombie, Ian Cullen, Vida Godson, Sandra Major, and Kelsey Timson, 246 pp. (Sage Publications, Beverly Hills, Calif.).

This study, undertaken by a British research group, is essentially an analysis of policy decisions regarding the desirable location of the "new universities" in England and Wales. The study argues that location is essentially the consequence of a certain ideology about the nature of a university. Although the new universities were mostly located adjacent to large urban areas, suburban sites were selected to emphasize liberal rather than vocational education, an elitist rather than a democratic structure, internal cohesion rather than external linkages, and total rather than partial involvement within the academic community.

Drawing on data obtained at one college located in London's West End, the authors point out that the college was heavily committed to teaching rather than to research, that students and faculty had limited interaction with each other and one another, and that involvement with the urban environment was individual rather than institutional. Unfortunately, extensive comparative data were not available.

What emerges from the study seems to be an awareness that an urban location in and of itself does not necessarily mean strong linkages between a university and its environment. Students in an urban university may look to the urban rather than the academic community for their social, cultural, and personal relationships. But this circumstance does not mean close student involvement in an educational-urban linkage. Faculty members may cultivate intellectual and cultural values that only partially reflect both the resources and the needs of the urban community.

This research study suggests that the location of a university affects performance to some extent, but not critically. If a university is to be of as well as in an urban environment, the required linkages depend on more than location alone.

9:1.4/72-1

Reform in Graduate Education, Lewis B. Mayhew, 182 pp. (Southern Regional Education Board, Atlanta, Ga.).

In this special study for a regional planning and advisory agency, the author reviews the essential problem areas for planners of graduate education. Mayhew first summarizes the defense and the criticism of graduate education. The basic conflict involves the essential purpose of graduate education: Are the graduate departments in the arts and sciences essentially professional schools producing scholars to staff other graduate departments and to produce the research needed to advance the knowledge of a discipline? Should graduate departments produce college teachers? Should graduate departments in the arts and sciences produce persons qualified to apply knowledge to practical problems? Can one graduate department prepare individuals for all three roles, or must the differentiated purposes be assigned as differentiated missions to different institutions? These are the troublesome questions facing Ph.D.-level graduate education in the arts and sciences. Like others, Mayhew had no ready answers.

The author provides a useful summary of various studies and observations about graduate education. The subjects included in the discussion are curriculum and instruction, structure and organization, preparation of college teachers, and various "unresolved" issues such as the foreign language requirement, financial aid, special admissions, and developmental assistance to students.

Although the study is aimed primarily at institutional planning rather than state or Federal Government planning, it identifies issues that Federal and state planners cannot avoid, especially as they consider institutional missions in graduate instruction and research performance.

9:1.4/72-2

Where Colleges Are and Who Attends: Effects of Accessibility on College Attendance, C. Arnold Anderson, Mary Jean Bowman and Vincent Tinto, 303 pp. (McGraw-Hill book Co., New York).

This study, conducted for the Carnegie Commission on Higher Education, questions whether immediate geographic accessibility to a college increases the proportion of high school graduates who undertake postsecondary education. The authors begin with several givens: the local presence of a college encourages enrollment through lowered costs of attendance; standards of selectivity influence enrollment; and tuition costs affect enrollment. The authors add to this list the factor of communication: the local perception of the opportunity for higher education affects the way that prospective students view it. Making use of data from studies conducted in California and Wisconsin, the authors tried to measure the impact of location on the individual propensity to enroll in higher education. In general, they found that college enrollment does appear to increase when an institution is located in a community; the increase is notable particularly when a 2-year public college or a 4-year state college is present in the area.

The authors examined a number of determinants for college enrollment. The ability of high school graduates and the status of their parents were found to have a strong influence on enrollment, while information supplied by the institution about itself appears to have limited influence. The authors found that students of modest academic ability and of low family income are those most likely to be affected by the availability of a college, especially a public college, in the immediate geographical area. At the time of the study, boys and girls responded differently to accessibility of higher education opportunity.

While the data drawn upon are not recent, the variables of sex, ability, and socioeconomic status are of enduring importance, and the penetrating analysis should prove useful to policymakers ready to challenge established opinions about the accessibility of all types of institutions and increased attendance. Comprehensive data from California, Illinois, North Carolina, Massachusetts, and Wisconsin illustrate what should be collected if other states wish to reexamine the primary question in a current setting.

9:1.4/70

The Open-Door Colleges: Policies for Community Colleges, Carnegie Commission on Higher Education, 74 pp. (McGraw-Hill Book Co., New York).

This report by the Carnegie Commission sets forth observations and proposals concerning 2-year community colleges. The report asserts the "great worth" of the community college to American society and urges that such colleges be within commuting distance of all persons except those living in very sparsely populated areas. The Commission favors the model of a comprehensive community college offering general education, academic, and technical education programs, and it states that community colleges should be satisfied to remain 2-year institutions and should not become 4-year or graduate institutions.

The Commission sees coordination between 2- and 4-year institutions as a major problem, and advocates full transfer rights for qualified graduates of the 2-year college. It acknowledges technical education as a program to be given full support and accepted status within the community college. Open access is advocated as the basis for admission. Tuition charges should be nonexistent or quite modest. Occupational and personal guidance should be major functions of the college. The college should enrich the cultural life of the community. The optimum enrollment size should be between 2,500 and 5,000 students. The college should be linked to its community through a local governing board or a local advisory board. And financial support should be provided by local, state, and Federal governments.

For the most part, the Carnegie Commission statement reflects a planning consensus about the mission and program of the community college. The recommendations of the Commssion were largely in the process of implementation by state and local governments when the report was issued; only the Federal Government has remained apart from community college development.

9:1.4/69-1

Graduate Education: Parameters for Public Policy, National Science Board, National Science Foundation, 168 pp. (U.S. Government Printing Office, Washington, D.C.).

This descriptive and factual account of the development and characteristics of graduate education in the United States as of 1968 provides the background for the National Science Board's recommendations for public policy published the same year. The account begins with a brief historical sketch, data about enrollment, and graduate enrollment projections up to 1980. Another section discusses the types of institutions offering graduate programs, with particular attention to graduate education in science and engineering. The geographical distribution of graduate enrollments is noted, and the concept of "deficits" in graduate enrollments by states is formulated. Summary data are included about graduate faculties and postdoctoral students.

The second section of the report discusses the issue of quality in graduate programs and mentions such factors as faculty qualifications, physical plant resources, library resources, enrollment size, institutional funding, and student selectivity. Especially interesting are the discussions of the cost of quality and the geographical distribution of quality.

A third section deals with financial perspectives related to graduate education, and especially the relationship of financial patterns to Federal Government funding. The vital interconnection in graduate education between instruction and research is traced in a historical sketch. A projection of the costs of graduate education to 1982 is included. Acknowledging that graduate education is the most expensive form of education per student, the report states that the only major source of increased income for graduate education appears to be the Federal Government.

The report concludes with a simple enumeration of policy issues to be considered: (1) the capacity of the educational system to meet graduate education needs in the next 10 years; (2) the achievement and maintenance of quality in graduate education; (3) the geographical deployment of graduate capacity to provide maximum benefit to society; and (4) the role of the Federal Government in relation to graduate education.

9:1.4/69-2

Toward a Public Policy for Graduate Education in the Sciences, National Science Board, National Science Foundation, 63 pp. (U.S. Government Printing Office, Washington, D.C.).

This report, prepared by the National Science Board of the National Science Foundation, is a landmark document in Federal Government planning for higher education. Noting that American science and engineering has achieved a position of great strength and that graduate education is the most rapidly expanding element of higher education, the board laments that institutions of graduate education have developed without the guidance and focus of an explicit national policy directed to their needs and opportunities. The board urges universities to undertake graduate programs only when they have strong academic departments and when adequate resources for graduate education are assured.

The board recommends that state and regional planning ensure that every metropolitan area with a population in excess of 500,000 has graduate education of high quality and of sufficient capacity to contribute fully to social, economic, and cultural development. The board sees the Federal Government's role as one of supplementing, not replacing, nonfederal funding. The board proposes six types of grant programs for the Federal Government in order to achieve a significant share of the total support of graduate education: (1) institutional sustaining grants, (2) departmental sustaining grants, (3) developmental grants, (4) graduate facilities grants, (5) graduate fellowships, and (6) research project grants. The last five kinds of grants are to be based on national competition, and the first grant is to be based on a formula that includes a quality factor.

Although this report came at a time when graduate education was about to undergo considerable review rather than further expansion, it sets forth important ideas that have influenced Federal and state government planning involving the research mission of higher education institutions.

See also: 4:1.0/70 **Free-Access Higher Education,** Warren W. Willingham.

24:3.2/74 **Commuting Versus Resident Students,** Arthur W. Chickering

2.0 PUBLIC INTEREST

For a discussion of the economic aspects of public interest, see Topic 3, Economics; for the politics of higher education, see Topic 6, Governance and Coordination.

9:2.0/79

Giving Youth a Better Chance: Options for Education, Work, and Service, Carnegie Council on Policy Studies in Higher Education, 345 pp. (Jossey-Bass, San Francisco).

The Carnegie Council has issued this extensive report in an effort to place higher education in a larger social context. In the Council's view, there are serious inequities between the resources devoted to young people enrolled in higher education and those allocated to youth who did not go to college

The report identifies a "youth problem" in the United States evidenced by school dropout rates, deficiencies in language and numerical skills, dissatisfaction with educational experiences, the absence of an effective transition from youth to adulthood, high youth unemployment, the lack of service and job opportunities, and inequality of opportunity. The report calls attention to successful experiments to remedy these deficiencies in several cities and urges concerted social attention to broadening both the high school choices for youth and the opportunities available after high school.

At the postsecondary level, the Council sees a considerably expanded role for the community college in assuming a youth service function that includes advice and assistance in finding jobs and in obtaining needed personal services. All institutions are urged to target their student financial aid programs more to low-income students, to expand work-study opportunities, to improve teacher education programs, and to assist schools in basic skills training.

This Carnegie Council report comes as near as any of its reports in providing a social setting, or a set of social expectations, for higher education. The report says, in effect, that higher education should not be expected to meet all the employment and other needs of youth. Rather, higher education is one of three options for youth after high school: further education, national service, and work. There are suggestions about a desirable interrelationship but no definitive statement of respective roles and interaction. Especially notable is the omission of a strong declaration of obligation on the part of college graduates to serve their fellow citizens.

See: 12:1.1/79-1 **American Higher Education in Decline,** Kenneth H. Ashworth.

Although acknowledging the achievements of higher education in providing the requisite talent for a high-technology economy and in contributing to the personal fulfillment of individuals in terms of understanding and cultural appreciation, the author of this volume is concerned about abuses that may be practiced by academic enterprises. These abuses involve misleading packaging and labeling of the benefits to be derived from higher education, the production of outcomes of dubious worth or utility, and the pursuit of government subsidies. The author believes that, as a consequence of such abuses, both the quality and economic value of higher education have declined and may continue to decline.

The author, who has been commissioner of higher education in Texas, is especially critical of Federal Government agencies in their handling of higher education programs. He asserts that Federal officers know too little about the organizational and operational characteristics of colleges and universities, and he suggests rotating officials between universities and government agencies. He also believes that colleges and universities should be more careful and more selective about their participation in Federal programs. In addition, he pleads for less administrative, legislative, and judicial interference in academic affairs. The extent to which state university officers might make a similar plea to state governments is passed by.

The author poses a serious social and political dilemma, but he poses the issue indirectly rather than directly. Colleges and universities have responded to social pressures to extend the scope of their instructional programs, to expand the numbers of students (often poorly prepared), to give high priority to research talent, and to undertake extensive community and other service programs. In performing these endeavors, faculties have expected substantial remuneration, students have needed and sought various kinds of financial and other assistance, and academic enterprises have had constantly to seek more income from charges, from the government, and from philanthropy. Both a commitment to learning and a respect for quality in performance have been sacrificed in the process. It will require more than an increase in institutional autonomy to rectify the decline as perceived by Ashworth.

9:2.0/75-1

College Responses to Community Demands, Arthur M. Cohen and Associates, 190 pp. (Jossey-Bass, San Francisco).

A professor of higher education at the University of California, Los Angeles and Director of the ERIC Clearinghouse for Junior Colleges, the principal author of this study tries to determine the extent and scope of the developmental mission of community colleges. In an earlier study, the author had discussed the tensions arising in community colleges as a result of the promise of equal opportunity and the certifying function inherent in an educational process that recognizes differential abilities and achievement. This study continues and advances the earlier analysis.

The author and his associates divide the discussion into three parts: the social forces intruding upon the community college mission, the attempts of community colleges to respond, and the perplexities confronting faculty endeavors. The study asserts that the control of community colleges is gravitating toward state capitals, in part because of increased state funding. A corollary of increased funding is an enlarged state role in prescribing the mission and the programs of community colleges. Increasingly, community colleges have acquired a community service mission demanded by local groups, without any corresponding provision of funding with which to perform such a mission. Meanwhile, faculty attitudes have been fashioned in large part by education and experience acquired before the community service mission emerged. As a result, faculty members see their role as instructional and as standard-enforcing, rather than as community development. Job satisfaction has thus become a major concern in faculty expectations.

While the author asserts that community colleges have become a permanent and useful adjunct to universities and have acquired an assured role in state plans for postsecondary education, he argues that community college spokespersons have not articulated the role of the college and have not confronted the contradictions in public expectation of program performance.

9:2.0/75-2

Managing Academic Change, S. V. Martorana and Eileen Kuhns, 218 pp. (Jossey-Bass, San Francisco).

The authors of this study set for themselves a challenging task: to construct a theory of the forces that interact to produce change in accustomed modes of behavior within colleges and universities. If the result is somewhat less impressive than the objective, it is not because they did not try.

The demand for change in higher education is accepted as self-evident. The authors see the forces behind change as rising social expectations, public disenchantment with higher education, pressure for accountability, competition among institutions for students and dollars, concern for affective-learning values, student insistence upon career education, and the prospective decline of traditional-age students. The authors also identify four particular signs of change: the creation of new campus institutions, the development of noncampus opportunities, the establishment of satellite campuses, and internal program reform (calendar change, interinstitutional cooperation, adoption of a humanistic management philosophy).

From their illustrative data, the authors perceive six "major currents of change": new social objectives on the part of colleges and universities, a new focus on teaching and learning, a separation of teaching and learning from research and public service, increased attention to experiential learning, internal organizational flexibility, and a "drift toward systemization."

It is when the authors turn their attention to a strategy of change for academic leaders that one begins to have reservations about the discussion. The authors offer, on the one hand, advice about systematic experimentation, improved communication, and the development of legitimacy; on the other hand, they mention such manipulative practices as creating a social demand for new services, organizing power blocs, and presenting change as evolutionary rather than revolutionary. A suggestive matrix of interactive forces affecting innovation provides a common sense outline but no theory. Social change represents a high political art that successfully defies reduction to a science.

See: 31:1.0/75-1 **Planning the Development of Universities,** Victor G. Onuskin, ed.

This fourth volume in a series of publications presents case studies about university planning in five different countries: the U.S.S.R., the German Democratic Republic, the United States, Australia, and Belgium. Necessarily, the contrast is substantial. In the U.S.S.R. and the German Democratic Republic, higher education planning is part of a national economic plan. In the other three countries, higher education planning occurs in the context of some degree of social pluralism and liberal democracy.

The author of the U.S.S.R. study insists that university planning cannot "produce" talent but only develop it, and that university planning cannot determine the timing of scientific discoveries but only encourage it. The Soviet system seeks to plan those events, processes, and objectives within the university endeavor that are amenable to quantitative appraisal and evaluation. This planning process, he says, is based upon lessons of the past, the social purpose of higher education, the present state of learning, and methods for calculating the national demand for experts and scientists in industry, teaching, and culture. Although brief, the discussions of enrollment planning and admission, of job placement, of faculty education and development, and of evaluating performance provide substantial information about higher education in the U.S.S.R.

The case study from the German Democratic Republic focuses on Humboldt University (the former University of Berlin). Although the presentation is largely doctrinaire in tone, some sense is offered of the complicated interaction between ministry, rector, central councils, faculty, and students. The reality rather than the prescription would be fascinating to know.

A lengthy account of development at the State University of New York at Buffalo is three stories in one: the transition of a private university to a state university, the travail of a particular campus as part of a multicampus system, and the complexities of planning and budgeting for a university with internal vested interests to appease and external constituencies to satisfy. One suspects that students are instructed and faculty members teach in spite of rather than because of the system.

The Australian case study reports the development of the Western Australian Institute of Technology, a college of advanced education. The planning process is comprehensive and sophisticated. The study of the Catholic University of Louvain deals with the development and use of a management information system of substantial complexity, involving activities files, an analytical framework, and various subsystems of information flow. We are simply told that all the information is used by the decisionmakers of the university, whoever these persons may be.

9:2.0/71

The Politics of Disorder, Theodore J. Lowi, 193 pp. (Basic Books, New York).

Within the general context of a discussion of the contemporary disorder and failure of social institutions, the author presents a notable chapter on higher education, with the arresting subtitle of "the roots of constructive alienation." The author insists that the students of the 1960's were the first group in the university to perceive the collective institutionalized commitments to society. The consequence was an attempt to politicize the university.

The author attempts to classify educational systems and class interests in a matrix setting forth educational norms, educational ethics, and social interests. His observations are both innovative and worthy of extended discussion. Educational norms are identified as classic education, liberal arts education, disciplinary education, practical education, and technocratic education. The educational ethic corresponding to each of these norms is expressed as the consumer ethic (knowledge for its own sake), a second consumer ethic (the Renaissance man), the producer ethic (the major or specialist), the training ethic, and the problem-solving ethic. The social interest represented by each of these norms and ethics are shown as aristocracy, old bourgeoisie, the new middle classes, the working classes, and regimes.

The prescription of how universities may appropriately address themselves to social interests will appeal to some and will repel others. But the linkage of higher education norms with social interests constitutes a major contribution to thought, a concept requiring much more attention than it usually receives.

See also: 12:3.0/80 **Academic Adaptations: Higher Education Programs for the 1980s and 1990s,** Verne A. Stadtman.

12:3.0/71 **Institutions in Transition: A Profile of Change in Higher Education,** Harold L. Hodgkinson.

3.0 NEED FOR INSTITUTIONS

9:3.0/81

Report to the President from the Committee to Study Consolidation of the Chicago Campuses, Committee to Study Consolidation of the Chicago Campuses, 135 pp. (University of Illinois, Urbana).

This report to the president of the University of Illinois recommends consolidation of the University of Illinois Medical Center in Chicago and the University of Illinois Chicago Circle campus. The committee to study consolidation consisted of eight faculty members, four administrative officers, two professional support staff members, and two students. Six members were drawn from the University's Medical Center campus, six from the Chicago Circle campus, two from the Urbana-Champaign campus, and two from the general university.

In preparing its report, the committee addressed eight questions raised by the president of the University of Illinois. Would the presence and image of the University of Illinois campuses in Chicago be improved by consolidation? Would consolidation improve the university's capability to respond to the needs of the community it serves? Would the two Chicago campuses be stronger in concert than separately in the competition for limited resources? Would consolidation provide opportunities for mutually beneficial academic program relationships? Would there be possible and reasonable options with regard to consolidation of organization? What would be the implications for Board of Trustees oversight under different models of oversight? What particular issues of concern would arise for the university's publics in the event of consolidation? What would be the university-wide implications of consolidation, including implications for the Urbana-Champaign campus?

After careful and extensive consideration of these questions, the committee recommended a merger model as an initial step toward consolidation. The committee recognized that consolidation could not be achieved in one quick action, but would have to proceed in an orderly fashion over a considerable period of time.

The report is important for two reasons. First, it represents an institutional rather than a state government initiative in analyzing and proposing the merger of two campuses within a public multicampus system. Second, it represents a rational, careful approach to the problem of the desirability of merger within a university system. In many ways, this report might well serve as a model for further such concerns in multicampus systems as the decade of the 1980's unfolds.

9:3.0/75

Science Development, University Development, and the Federal Government, National Board on Graduate Education, 48 pp., and *Science Development:* An Evaluation Study, David E. Drew, 182 pp. (National Research Council, Washington, D.C.).

These two documents, one a policy statement and the other a staff technical study, deserve careful attention for a single reason. The University Science Development Program, conducted by the National Science Foundation from 1965 to 1971, was a Federal Government excursion into *institution* building. The Federal Government research programs as of the early 1960's were criticized on several grounds: they provided support to a handful of universities, the support was concentrated in two geographical areas (New England and California), and both economic development and the achievement of quality graduate education were being hampered in other parts of the nation by the existing pattern of Federal Government research support. The government response to these criticisms was that research support went to persons in those universities in which high-quality research was the basic institutional mission.

The University Science Development Program was an NSF endeavor to assist additional universities to achieve distinction in graduate education. The program was based on the proposition that below the top 20 leading research universities were another 20 or so research universities on the verge of quality achievement. The NSF attempted to assist these other universities in their efforts and aspirations for research quality. The program was careful not to identify the top 20 research universities. (Some 31 universities receiving development grants at that time were obviously not then considered to be in the top 20.)

The study found that the additional NSF grants did produce positive changes in the quality of graduate education. The study also found that the institutions with careful internal planning and with additional external support tended to maintain the gains made possible by the Federal grants. The program did advance the geographical dispersion of leading research universities. The report and study deserve attention also because of their contribution to evaluative procedure.

9:3.0/71

New Students and New Places: Policies for the Future Growth and Development of American Higher Education, Carnegie Commission on Higher Education, 158 pp. (McGraw-Hill Book Co., New York).

This report by the Carnegie Commission presents enrollment projections for American higher education to the year 2000, and then prescribes the numbers and types of additional institutions needed to meet projected enrollment.

On the basis of then current enrollment trends, the Commission foresaw a total enrollment of 13.5 million students in 1980 (compared with 8.5 million students in 1970), 13.3 million students in 1990, and 17.4 million students in 2000. On the basis of so-called "prospective trends," the Commission projected enrollments of 12.5 million students in 1980, 12.3 million students in 1990, and 16 million students in 2000.

The Commission found that, to accommodate this further enrollment growth after 1970, additions were needed in only two types of institutions: community colleges and comprehensive colleges located in metropolitan areas, especially those areas with a population over 500,000 persons. According to the report, the inner cities were not adequately served by existing institutions. The Commission suggested the need for 175 to 235 additional community colleges and 80 to 105 comprehensive colleges. The

Commission categorically asserted: "We find no need whatsoever in the foreseeable future for any more research-type universities granting the Ph.D."

To some extent, the Commission's recommendations for new institutions were based on its definition of ideal size for any particular campus. For community colleges, the Commission proposed a minimum size of 2,000 students and a maximum size of 5,000; for comprehensive colleges, it advocated a minimum of 5,000 students and a maximum of 10,000; for universities, the desirable range was from 5,000 to 20,000 students. The Commission pointed out that the maximum desirable size was already exceeded by 23 public universities, 12 public comprehensive colleges, and 7 public liberal arts colleges.

There is a dearth of research on community, regional, and urban colleges. A work that looks promising but is actually of little substance is *Lifelong Learners—A New Clientele for Higher Education*, Dyckman W. Vermilye, ed. (Jossey-Bass, San Francisco). The theme of the various essays is that colleges and universities in the 1970's and 1980's can perform a new mission, which is true; yet as a guide to program planning, the volume is generally inadequate.

9:3.0/69

The Invisible University: Postdoctoral Education in the United States, Report of a study conducted under the auspices of the National Research Council, 310 pp. (National Academy of Sciences, Washington, D.C.).

The "invisible university" of this study is the university serving as host to postdoctoral fellows. This study is the only one that provides historical and analytical data about the development of postdoctoral study as part of the educational mission of research universities and as part of the preparation of scholars for the practice of scholarship.

The study identifies the postdoctoral fellow as a young Ph.D. recipient who seeks further research experience under a mentor before beginning the independent practice of his or her scholarly discipline. The host university is usually a leading research university. The mentor is usually a university professor distinguished for research accomplishment. There are exceptions to these findings—in the humanities the fellow may be an older scholar—but the generalizations indicate predominant characteristics.

This study maintains that the postdoctoral appointee should be viewed as a scholar "in development" rather than as a means to other ends, such as staff for a specially funded research project. The study states that few universities, public or private, have adequate space or facilities for postdoctoral fellows. Yet funding agencies, including state budget offices, are urged to recognize the importance of the postdoctoral program to the university in which research is a major activity.

This study, which appeared just as the major period of postwar Federal research support was beginning to slow down, addresses a little-recognized part of a leading research university's mission. That mission still remains invisible. It is plain that postdoctoral fellows will be hosted to the extent that there are specialized research funds available and to the extent that mentors continue to enjoy having such fellows around them. The university heavily involved in research will be the university heavily involved in postdoctoral education.

See also: Topic 8: Independent (Private) Higher Education for further references on the subject of need for institutions.

4.0 PROGRAM REVIEW

9:4.0/81-1

Assessing and Interpreting Outcomes, New Directions for Program Evaluation, No. 9, Samuel Ball, ed., 89 pp. (Jossey-Bass, San Francisco).

The articles in this collection of papers explore the complexities of observing and evaluating the outcomes of complex programs and systems, and review basic research methodologies in evaluation.

One problem that these articles acknowledge but cannot resolve is that of determining the benefit produced in many kinds of endeavors, especially those in education. Determining the quality of change achieved is even more elusive than determining the quantity of change. The outcome assessment principles set forth here involve a determination whether or not program goals are being achieved, an examination of outcomes in addition to cognitive achievement, a systems approach concerned with various factors (psychological, social, environmental), and differentiated outcomes for different groups of students. A table on data sources for evaluation efforts is worth careful attention.

9:4.0/81-2

"Program Review and the State Responsibility for Higher Education," Kenneth C. Green, *Journal of Higher Education,* Vol. 52, January/February, pp. 67-79.

The traditional state government position about quality in higher education has been based on traditional institutional concerns: students with high test scores or high rank in high school class, faculty with doctoral degrees and research interests, appropriate physical facilities, and generous financing.

The author of this article insists that this traditional position may be undermined by court decisions on access to public higher education and by changing patterns of student enrollment. He suggests that states give further attention in program review to access and opportunity, service to client populations, program finances, cost/benefit analysis, and degree productivity.

9:4.0/81-3

Quality—Higher Education's Principal Challenge, Thomas M. Stauffer, ed., 122 pp. (American Council on Education, Washington, D.C.).

The articles in this volume originally were commissioned as background papers for the 1979 annual meeting of the American Council on Education. The 23 contributors included college presidents, vice presidents, association officers, faculty members, and consultants. If there is a common theme to be found among such a disparate array of authors, it is that quality is an essential attribute of higher education but an elusive characteristic to identify and define.

The concern with quality has resulted especially from the extensive expansion of enrollment and the broadened access to higher education occurring since 1945. To some, one consequence of this development is that standards of intellectual achievement have been sacrificed. A contrary position argues that the American economy and society offer useful tasks for a wide variety of abilities and that education can and does advance these diverse competencies.

The authors of this volume grapple valiantly with the concern for quality. The prevailing response seems to be acknowledgment of a need for multiple criteria in defining quality. But there is no apparent agreement about the scope or application of these criteria.

The papers in this collection are grouped into several component parts: the definition of quality, the quality of academic leadership, the quality of campus morale, the measurement of quality by process or outcomes, the quality of campus planning, the quality of academic programs, the quality of institutional self-regulation, and the quality of the black college experience. All of the articles are insightful, and some are especially helpful. One section, on the process and criteria for making cutbacks in academic programs, seems to be particularly useful, even if none of the articles are quite as blunt as the difficulties of the 1980's may demand.

9:4.0/80-1

Academic Program Evaluation, New Directions for Institutional Research, No. 27, Eugene C. Craven, ed., 119 pp. (Jossey-Bass, San Francisco).

This collection of papers explores problems in academic program evaluation. Fred F. Harcleroad looks at the history of academic program evaluation, pointing out that it began shortly after the founding of Harvard and has evolved through various stages of development down to the present day. Barry A. Munitz and Douglas J. Wright argue that responsible planning and resource allocation require systematic processes of program evaluation, and they draw on examples from three universities. Donald K. Smith relates program planning and evaluation to the peculiar circumstances of the multicampus governing board. He refers particularly to differentials of mission, approval of new programs, the requirement of institutional evaluation of existing programs, and the conduct of special planning studies. He also relates program evaluation to budgeting. E. Grady Bogue examines the same issues from the perspective of the state government coordinating board. He suggests particular attention to degrees awarded as a criterion of program efficiency and need. Finally, Kenneth E. Young and Charles M. Chambers describe the accreditation approach to academic program evaluation.

9:4.0/80-2

Accreditation: History, Process and Problems, Fred F. Harcleroad, 53 pp. (American Association for Higher Education, Washington, D.C.).

One of the well-known research reports of the ERIC Clearinghouse on Higher Education, this study reviews the history of voluntary accreditation of institutions as a means for ensuring that minimum standards of performance are observed in instructional activities. Harcleroad divides his brief account of the development of accreditation into five periods—1787-1914, 1914-1935, 1935-1948, 1948-1975, and 1975-1980—and identifies the particular characteristics and concerns of each period.

Harcleroad accepts a three-part definition of voluntary accreditation formulated by Kenneth E. Young: (1) voluntary, nongovernmental arrangements to encourage and assist institutions in the evaluation and improvement of their educational quality; (2) a process of self-evaluation reinforced by independent judgment whereby an institution determines that it substantially achieves its own objectives and is generally equal in quality to that of comparable institutions, and (3) a status of affiliation with other accredited institutions.

A basic difficulty in accreditation has been the inability of the process to guarantee that a college will appropriately participate in state and Federal programs for financial assistance to institutions and to students. When higher education gave way to an expanded definition of postsecondary education, Federal Government agencies found themselves involved with propriety training enterprises and with other arrangements for meeting individual efforts to develop vocational and technical skills. By 1977, the U.S. Office of Education had listed 8,544 institutions as acceptable for participation in student aid programs; only about 3,000 could be regarded as accredited institutions of higher education.

The alternative to voluntary accreditation has been identified as either state government or Federal Government licensure. Beyond concern about government regulation and domination of educational activities, Harcleroad refers to other problems including consumer protection, diversity in postsecondary education, and confusion in defining a college. He lists six possible methods of accreditation, and believes that both an expansion of voluntary review and a system of state government licensure will probably develop in the 1980's. There is a useful bibliography.

9:4.0/80-3

Funding Quality Improvement: Lessons from the FIPSE Experience, Charles Bunting, and **Proliferation and Agency Effectiveness in Accreditation: An Institutional Bill of Rights,** H. R. Kells, Current Issues in Higher Education No. 2, 34 pp. (American Association for Higher Education, Washington, D.C.)

Written by Charles Bunting, then acting director of the Fund for the Improvement of Postsecondary Education, this first paper reports the results of an evaluation of the Fund's first 7 years of grant effort. The theme of the paper is that Federal programs need to analyze carefully the field or problem to be handled, the goals to be achieved, and the appropriate strategies for accomplishing desired goals. The Fund early decided that projects should be learner-centered, cost-effective, and far-reaching in impact. The author maintains that Fund projects have yielded a considerable body of useful knowledge, although the scope and content of this knowledge are not indicated. Rather, attention is directed more to project management than to project accomplishment. Three commentaries follow the paper itself.

The second paper, by H. R. Kells, deals with the relationship between institutions and accrediting agencies. The author, a former associate director of the Middle States Commission on Higher Education, stresses that there are too many accrediting agencies (between 45 and 60), too little coordination between them, too many self-studies, and a burdensome schedule of visits. He argues that accrediting agencies must validate their standards, provide more on-campus staff assistance, improve evaluation team activities and reports, and provide rights of appeal. The author advocates an Institutional Bill of Rights for colleges and universities to reduce duplication and promote effectiveness in evaluation.

9:4.0/80-4

Improving Degree Programs, Paul L. Dressel, 319 pp. (Jossey-Bass, San Francisco).

Subtitled "A Guide to Curriculum Development, Administration, and Review," this volume brings together Dressel's many years of experience and study on the subject of instructional programs. After an introductory chapter on conceptions of educational programs, the author divides his discussion into three parts: factors in program development; planning and developing programs; and reviewing and administering programs. In a brief final section, he suggests certain standards for program development and enrollment.

Dressel begins by defining a degree program as a fixed set of courses or curriculum leading to award of a degree. This degree program or curriculum may consist of required courses (general or specialized), a major field of concentration, and some electives. Over time, the author says, the tendency in many undergraduate degree programs has been for increased flexibility and student choice. The author insists that an undergraduate program is intended to involve progress toward complete and more difficult ideas and tasks, as well as an interrelationship of concepts. He laments a slighting of values and manipulative skills in most formal programs and courses.

Dressel devotes four chapters to program structure and objectives. He reports that undergraduate programs have tended to become more and more highly specialized, to the neglect or abandonment of breadth of knowledge. Experimental or interdisciplinary programs have endeavored to overcome this defect but have not had a notable record in student enrollment or cost efficiency. The discussion of various concepts of breadth and of the difficulty of determining any particular program requirement will be familiar to all who have wrestled with curriculum problems in the past 30 years.

Another four chapters are concerned with program planning. Dressel begins this discussion with a review of faculty motivation. He lists various factors that inhibit curricular change and presents models for program planning. One chapter deals with methods and practices in individualizing programs, and Dressel's observations and the cautions mentioned here are worth careful consideration. His discussion on evaluation is both elementary and necessary.

Four final chapters involve program review. Dressel concludes that such review tends to be erratic and perfunctory. He recognizes among the purposes of review a concern for quality, need, costs, and public relations.

He presents procedures and criteria for decisionmaking, and he offers guidelines for the appropriate procedure in phasing out a program offering. Finally, he offers guidance about advising students about programs and courses.

There is little in this volume that will be new to the experienced academic planner. The important service rendered by Dressel is to have brought together, in a relatively concise manner, a comprehensive reminder about the vital considerations in program development and review.

9:4.0/80-5

Improving Teaching and Institutional Quality, Current Issues in Higher Education No. 1, Alexander Astin and others, 58 pp. (American Association for Higher Education, Washington, D.C.).

In six separate papers, the authors address questions of measuring instructional quality and improving teaching effectiveness. Alexander Astin identifies five different views of quality—the mystical conception, the reputational conception, the resources conception, the outcome conception, and the value-added conception—and advocates a new approach to quality that would maximize the learner's knowledge of results and time on task. C. Robert Pace discusses 14 quality-of-effort measures used in his College Student Experience Questionnaire and reports the results of use of the measures at 13 institutions. Toni B. Trombley and David Holmes predict that colleges and universities will strengthen their academic advising systems as one of the best investments they can make in the 1980's. Robert J. Menges reviews programs and procedures for improving teaching as a process and concludes that teaching remains an art in which some ideas and tools can at least be helpful. Robert T. Blackburn and his associates from the Center for the Study of Higher Education at the University of Michigan report the results of a project to evaluate faculty development programs. This paper and its conclusions deserve careful attention as guidelines for practice. Hans O. Mauksch identifies two major obstacles to quality teaching: a lack of faculty belief that quality teaching will be recognized and rewarded, and a lack of institutional encouragement.

9:4.0/80-6

"Institutional Participation and Reciprocity in State-Level Program Reviews," Richard F. Wilson, *Journal of Higher Education*, Vol. 51, November-December, pp. 601-615.

In this article, Richard Wilson explores institutional participation in program review by state boards of higher education, by statewide governing boards, and by private colleges and universities. The author reports that review procedures are quite widely established and practiced among 45 states, but that private institutional participation (ranging from limited to extensive) is included in only 10 states. According to Wilson, the existence of a statewide governing board tends to discourage private institutional participation. Wilson favors participation by private institutions on a reciprocity basis involving review, particularly of graduate programs, of both public and private universities.

9:4.0/80-7

Toward Reform of Program Evaluation, Lee J. Cronbach and Associates, 438 pp. (Jossey-Bass, San Francisco).

This volume resulted from an interdisciplinary evaluation consortium project carried out at Stanford University. Cronbach and seven other authors set out to develop and present the view that evaluation is a novel political process and institution: the object of attention is not evaluation of higher education as such, but evaluation of all kinds of social activities in the interest of self-renewal of institutions.

The book begins with 95 theses that set forth the general position of the authors. The theses begin with the statement: "Program evaluation is a process by which society learns about itself." The final three theses assert that: an evaluator is an educator to be judged by what others learn; the evaluator's task is to illuminate the circumstances of decisionmaking and not to dictate the decision; and an evaluation should aim to be comprehensive, complete, correct, and creditable to partisans on all sides.

In the context of this volume, a program is a standing arrangement providing for a social service. Program evaluation is a systematic examination of events occurring in the performance of a program with the intent of improving program endeavor and contributing to the consideration of alternative plans. Evaluation is also considered to be a product of social science research used primarily in the years since 1960.

The reform toward which this volume points is essentially twofold: to improve the technical process of evaluation and to alert the evaluator to the political and social context of evaluation. Although some of the illustrations in the book are drawn from educational programs, almost all in elementary and secondary education, this study is a treatise in social science methodology, a methodology that higher education planners cannot afford to ignore.

9:4.0/80-8

Values, Ethics, and Standards in Evaluation, New Directions for Program Evaluation, No. 7, Robert Perloff and Evelyn Perloff, eds., 103 pp. (Jossey-Bass, San Francisco).

This collection of articles about program evaluation seeks to explore the goals and purposes of programs and to assess the values inherent in their outcomes. There is no doubt that evaluation efforts ought to be fair, unbiased, and objective. Yet these very terms defy precise definition, and little help is provided by the authors in setting forth guidelines to such desirable attributes. The discussion of biases is helpful in promoting a recognition of factors and practices harmful to so-called objectivity. Certain ways and methods are available at least to minimize the factor of bias.

A paper on ethics in the professional and personal decisions involving program evaluation draws upon the work of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The three basic principle set forth there were principles of beneficence, respect, and justice. The role of the evaluator is to do everything possible to establish the true nature of the impact of a program. The search for standards in evaluation efforts is ongoing but far from being completed.

9:4.0/80-9

Voluntary Organizations in America and the Development of Educational Accreditation, Fred Harcleroad, 29 pp. (Council on Postsecondary Accreditation, Washington, D.C.).

In this paper, the author begins by paying tribute to voluntary associations as the American way of solving new social problems. Harcleroad identifies 16 different types of nonprofit organizations constituting the voluntary sector of society, and refers also to the private enterprise sector and the public enterprise sector for meeting social needs. This three-fold classification is further divided into six organizational types. Accreditation of colleges and universities is assigned to the fourth category of nonprofit, nontaxed, nongovernmental voluntary organizations operated in the public interest.

Harcleroad reports that voluntary educational accreditation began in the last quarter of the nineteenth century as a result of the unevenness of quality and widespread chaos of high school and collegiate education. He reviews the complicated relationships in voluntary accreditation resulting from the expanded Federal Government involvement with higher education after World War II. The author concludes that voluntary accreditation still has an important role to perform in the United States.

See: 4:1.0/80 **Equity Self-Assessment in Postsecondary-Education Institutions,** Sherrill Cloud.

Equitable action in access to higher education, in the services of higher education, and in employment by higher education is not easy to define or to practice. Institutions of higher education are expected by law to observe the standards of equity. And self-evaluation is one of the primary techniques for fulfilling these legal and moral obligations.

In this book, the author reports the results of several initiatives undertaken by the National Center for Higher Education Management Systems to improve higher education planning and management in the area of nondiscrimination and affirmative action. The discussion begins with attention to the target areas: race, age, sex. An accompanying table is helpful in identifying the individual characteristics and circumstances that may raise questions about equitable treatment. The major equity issues are identified as access to institutions, access to programs, access to resources, and access to employment. A self-assessment framework presents basic questions to be answers by the institution. The author presents an outline for the analysis of equity goals, and necessary processes of goal implementation. The bulk of the volume, some 90 pages, is devoted to a selected bibliography indicating the kind of material available for institutional guidance.

See: 37:1.0/80-2 **Understanding Student and Faculty Life,** Leonard L. Baird, Rodney T. Hartnett, and Associates.

This book is a plea for administrators, faculty members, and students to make better choices by means of environmental assessment. This plea is illuminated in nine chapters by various authors. The two principal authors are associated with Educational Testing Service.

The first chapter describes the history, uses, and importance of campus surveys. The surveys involved move from descriptive statements to the environmental assessment technique to interpretative analysis. Particular attention is given to the College and University Environmental Scales and to the Institutional Goals Inventory. The next seven chapters deal, respectively, with: information systems about student activities and opinions; assessing diversity among campus groups; faculty attitudes and responses to their environment; the collection and analysis of social and economic information; interinstitutional comparisons; problems involved in undertaking and implementing campus studies; and using survey data to bring about improvements in college operations. A final chapter provides an inventory of leading available instruments for assessing campus environments. This chapter alone may make the volume worthwhile for academic administrators and others.

See: 31:2.0/79 **The Assessment of College Performance,** Richard I. Miller.

In this volume, subtitled "A Handbook of Techniques and Measures for Institutional Self-Evaluation," the author has undertaken to provide assistance in the development of criteria and procedures for institutional appraisal. He begins with suggestions about how to plan effective institutional self-study. He points out that if institutions do not undertake their own vigorous self-assessment, someone else will probably do it for them. In his view, institutional quality can be defined in terms of characteristics of students, faculty, administrators, trustees, and alumni, and in terms of purposes, programs, and resources.

In 10 chapters, Miller examines as many aspects of the academic enterprise (goals and objectives, student learning, faculty performance, academic programs, institutional support services, administrative leadership, financial management, governing board, external relations, and institutional self-improvement), reviewing relevant literature and research findings and providing suggested evaluation procedures and criteria.

This handbook is an essential guide for any institutional self-evaluation effort. However, one wonders whether or not the criteria and the discussion recognize the actual variety of purposes and programs that exists among the 3,000 campuses in America.

See: 37:3.0/79-1 **Evaluating Educational Environments,** Rudolf H. Moos.

This study represents the application of knowledge about environmental impact upon human behavior to two educational settings: university student living groups and high school classrooms. The volume discusses two new scales for evaluating social environments and examines a broad range of student outcomes related to personal and academic life.

Moos presents a model of the relationship between environmental and personal variables that interact to produce student stability and change. He conceptualizes the environmental system in four principal domains—the physical setting, organizational factors, the human aggregate, and the social climate—and reviews research about student living groups. Moos also discusses a University Residence Environment Scale developed to measure the social environment of residence halls, fraternities, and sororities, and reports the results of sampling some 10,000 students in 225 living groups at 25 colleges and universities in 12 states. The findings of Moos' study should be useful to student service officers as well as institutional planners.

In a final chapter, Moos presents his conclusions that student living groups vary considerably among themselves. Some groups are more supportive, more structured, more independent than others. The process of assessing living group arrangements apparently can be helpful to students and staff of higher education institutions.

9:4.0/77-1

"Program Review by Statewide Higher Education Agencies," Robert J. Barak, in *Increasing the Public Accountability of Higher Education,* 99 pp. (Jossey-Bass, San Francisco).

Statewide boards of higher education may use various sources of information in reviewing institutional programs. There may be self-review, peer review, or external review. The purpose of state agency review is to evaluate accountability and the use of state resources by an educational institution in relation to other institutions. To make such a review, the agency must measure income and outcome based on need, cost, productivity, and quality.

The author uses the comprehensive development plan of 1969 in Florida as a case study in establishing criteria for the review of instructional programs. The Florida plan involved a 5-year moratorium on Ph.D. programs and a formal procedure for identifying and reviewing similar programs offered by the nine state universities. No new degree program could be planned by a university without prior approval, and annual analysis of degree productivity was introduced for all degree programs. If the number of degrees fell below specified minimums (6 degrees in a doctoral program, 9 to 15 degrees in a master's program, and 15 to 30 degrees in a baccalaureate program), the program was placed on probation. If the minimums were not reached within 3 years, the program was studied in depth to determine whether it was needed.

This procedure encountered considerable faculty criticism, and a modified process making more extensive use of outside consultants was introduced. The author also reviews the procedures introduced in New York State to review doctoral degree programs.

9:4.0/77-2

State-Level Academic Program Reviews in Higher Education, Robert J. Barak and Robert O. Berdahl, 141 pp. (Education Commission of the States, Denver, Colo.).

This study of program review procedures employed by State boards of higher education found that the process had become more comprehensive and sophisticated by the first half of the 1970's. The criteria for review involved a careful description of program content, a clear statement of program objectives, an analysis of program need, a projection of program costs and a plan for financing them, a review of accreditation requirements and expectations, and a statement of student financial aid intentions and availability. The process of program review has usually involved intra-institutional approvals, interinstitutional approvals, state staff review, and state board action.

The critical problem has become not the review of new programs but the review of existing programs. Here additional issues are involved. The number of programs offered necessitates some screening device or some criteria about urgency and scheduling. The factors given predominant weight are quality, output, institutional priority, and cost. Here the review process generally consists of two phases: the determination of programs to be reviewed, and extensive analysis of program experience. This analysis begins at the institutional level but eventually involves interinstitutional review, the possible use of external consultants, and staff recommendation. Governing boards rather than state planning and coordinating boards must make the decision to reduce the scope of a program or to eliminate a program. There is always the possibility in program review, however, of intervention by state budget agencies, state chief executives, and the state legislature.

9:4.0/75-1

Report of the System Advisory Planning Task Force: Reducing the Scope of the University of Wisconsin System, University of Wiconsin Board of Regents, 98 pp. (University of Wisconsin, Madison).

In January 1975, the Governor of Wisconsin, in view of fiscal constraints on the state budget, asked the University of Wisconsin Board of Regents to examine ways in which it could change the educational system and, in particular, to present recommendations involving the phasing out, trimming down, or consolidation of existing campuses and programs. With only a very brief period in which to respond, the board, through a System Advisory Planning Task Force, organized and provided a thoughtful answer to the Governor's request.

The task force raised five critical issues of public policy: what access did the state wish to provide for higher education; what was the state commitment to quality as a central or first priority; should the system maintain quality by reducing access; should the state continue to provide multipurpose universities in various regions of the state; and should the system maintain quality by reducing the number of programs. The university could provide its recommendations on these issues but it could not resolve them.

Based on various simulation studies, the task force presented several conclusions. Substantial cost savings could be realized by closing institutions and terminating some programs, but only if enrollment throughout the system was reduced. The reduction of programs on a particular campus would increase the costs of instruction for the remaining students. The phasing out of an instructional program involved various interactions, and savings could be realized only if the entire budget unit were eliminated. The task force further concluded that a continuous process of program audit and review—with attention to program quality, need, productivity, and cost—was the best approach to eliminating low-productivity programs. Cost savings could best be achieved by the management of class size and by the consolidation of small budget units rather than by the phase-out of programs. The closing of an entire campus would have substantial impact on a community. The costs of a campus need to be identified as fixed costs, incremental costs, and variable costs.

The entire report provides a substantial and careful analysis calculated to discourage simplistic solutions to complex problems.

9:4.0/75-2

"Role of Statewide Boards in Program Review," Elizabeth H. Johnson, in *Learner-Centered Reform*, Dyckman W. Vermilye, ed., 37 pp. (Jossey-Bass, San Francisco).

Embedded in a general discussion of the authority of statewide boards of higher education, this essay considers in particular the role of such boards in reviewing academic programs. The purposes of program review are seen as: (1) conserving resources, (2) assuring quality programs, (3) avoiding unnecessary and unwise duplication and proliferation, and (4) assessing the need for a given program.

According to Johnson, program review involves the determination of three procedures: (1) the programs to be reviewed, (2) the criteria to be used in judging program desirability, and (3) the mechanism for review. Regarding criteria to judge the program, the author notes that statements of institutional mission usually provide little guidance about appropriate academic programs. She further observes that program termination conserves resources only if the number of faculty is reduced.

9:4.0/73

Meeting the Needs of Doctoral Education in New York, Regents Commission on Doctoral Education, 67 pp. (New York State Education Department, Albany, N.Y.).

Meeting the Needs of Doctoral Education, a policy statement by the New York Board of Regents, and the Regents Commission report on which the statement is based constitute a program of review for doctoral education by the most powerful state government education board in the United States. The objective of the statement was to establish standards for evaluating doctoral programs in both public and private institutions of higher education.

Following a review of the data about doctoral degree programs in New York, the Board of Regents statement endorses the recommendations of its study and declared the Board's intention to implement those recommendations immediately. All doctoral programs, both public and private, were to be considered a statewide resource for graduate education. All doctoral programs would be expected to meet standards of high quality and demonstrated need, and all qualified New York students should have equal access to doctoral education. The Board declared its intention to undertake a review and evaluation of doctoral programs on a subject-by-subject basis and on a statewide basis. Resources for graduate education would then support those programs meeting standards of high quality and need. The Board identified 17 major subject areas for review: 13 in the arts and sciences, plus education, engineering, business and management, and area studies.

The Regents Commission proposed that evaluation committees employ both objective and judgmental criteria. Among the factors mentioned were quality of students, scholarly achievement of faculty, quality of library and laboratory facilities, financial support, and caliber of dissertations. Need was defined as including demand for educated manpower, concern with "societal problems," the transmission of knowledge in the "most esoteric fields," and new forms or types of doctoral programs. It was further proposed that need be determined on a regional, statewide, and national basis.

10

Management—Quantitative Approaches

Ben Lawrence

The function of management is to obtain and utilize efficiently the resources needed to accomplish desired ends. This chapter deals with quantitative approaches to planning and management in colleges and universities and in state systems of education. The higher education planner/manager seeking to apply quantitative approaches must initially address these basic questions: (1) Will quantitative approaches help with this particular planning decision? (2) What information is needed? (3) Where can this information be obtained? (4) What techniques will be used to analyze the information and thus clarify the decisionmaking issues? (5) How will the information be used in a particular case?

The entries in this chapter, which are grouped in three subtopics related to the above questions, show that planners can find answers to these questions through the use of models and manuals. (Information on the third question can also be found in Topic 12: Policy and General Reference; Subtopic 4.4: Data and Information Sources and Services.)

Critique and Evaluation. Quantitative approaches to planning and management are relatively new to higher education. And there is still considerable opposition to and reservation about their use in this important and labor-intensive enterprise. The works included in this subtopic are evaluative in nature, touching on the advantages and disadvantages of applying quantitative approaches to higher education management. Early evaluations were general and conceptual. More recent evaluations and critiques are specific to particular quantitative approaches or, when general, are based on empirical studies. Planners and managers need to be aware of these discussions and evaluations as they consider use of these tools.

Foundations. The paramount need of the higher education manager who seeks to apply quantitative approaches is for an "information language" that adequately describes higher education institutions, agencies, and programs. Such a language is important for two reasons: It provides the basic vocabulary for talking about higher education as it relates to management; and it guides or structures the formation of complete thoughts and ideas that lead planners to make management decisions. The works referenced in this subtopic fall into two categories: dictionaries and glossaries that deal exclusively with standard definitions, and volumes that address terms, definitions, and procedures common to the language of postsecondary education.

Analysis. This subtopic provides references to generalized mathematical models relevant to state and national planning. These publications usually include documentation and application manuals. The models are generally computerized and synthesize the volume of data a planner must consult in reaching decisions. Models that deal with specific planning topics such as costing, facilities projections, and faculty tenure are included, respectively, in Topic 13: Productivity and Cost-Benefit Analysis; Topic 5: Finance; Topic 21: Campus and Building Planning; Topic 26: Faculty.

Overall, this topic covers the *foundations* of quantitative and general analytical techniques, rather than specific quantitative and analytical approaches. The area of analytical foundations is one that has been of primary concern to the National Center for Higher Education Management Systems (NCHEMS) but to relatively few researchers elsewhere. For that reason, a substantial portion of the publications referenced here are NCHEMS publications.

TOPIC ORGANIZATION

10: Management—Quantitative Approaches
- **1.0** Critique and Evaluation
- **2.0** Foundations
  - **2.1** Dictionaries and Glossaries
  - **2.2** Measures, Structures, and Procedures
- **3.0** Analysis

1.0 CRITIQUE AND EVALUATION

10:1.0/81

Using Computer-based Planning Models, New Directions for Institutional Research, Daniel A. Updegrove, forthcoming. (Jossey-Bass, San Francisco).

This brief article explains the recent resurgence of the use of computer-based models in higher education despite harsh criticism during the past 10 years. It describes the new approaches to modeling, projects future trends, and provides an assessment of one of the most frequently used models today, the Educational Finance Planning Model (EFPM).

10:1.0/80

The Value of Uniform Financial Data for the Institution and the State: A Case Study, Douglas J. Collier, 52 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

A major theme in quantitative approaches to management is uniform or standard treatment of data. Several states have mandated uniform procedures for reporting financial data. This study examines the Oregon System adopted in 1976, assessing the value of various types of financial data to both institutional and state-level users.

10:1.0/79

Evaluation of the IEP Costing Procedures: A Pilot Study by Six Major Research Universities. James R. Topping, 4 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This document reports on a pilot-test study by six major research universities to evaluate the use of NCHEMS' Information Exchange Procedures (IEP) in the university setting. IEP is the most widely publicized and perhaps the most commonly used costing model in the country. And as this report concludes: "IEP constitutes a set of well-developed, well-documented procedures for performing cost analysis at both the full- and direct-cost levels, with emphasis upon instruction." However, colleges and universities compete with one another for scarce resources. And within institutions, academic departments and administrative units engage in similar competition. Any set of procedures devised to produce comparative information for use in such competitive settings will not only be criticized but will be found wanting on some dimensions. This study carefully highlights both the strengths and weaknesses of the procedures and serves as a useful qualitative guide to those who must develop cost information for exchange purposes.

See: 29:2.3/79-1 **New Approaches to Management,** J. Victor Baldridge and Michael L. Tierney.

This book assesses the utility of management information systems in 49 private liberal arts institutions. It addresses the general question, "Are colleges affected by changes in their management techniques and, if so, how?" Conducted by two social scientists, the study is the first research-based study of its kind. While it examines only private institutions, inferences may be drawn relative to other sectors of higher education, particularly since there are no similar studies in other sectors. It provides a prudently qualified positive assessment of the utility of management information systems when applied to these colleges.

10:1.0/77

Quantitative Approaches to Higher Education Management: Potential, Limits, and Challenge, G. Ben Lawrence and Allan L. Service, eds., 91 pp. (American Association for Higher Education, Washington, D.C.).

This work attempts to assess and describe the current status of the complex designs and techniques that fall under the heading of quantitative approaches to higher education management. Designed for the executive reader, it provides a brief history of the roots of quantitative approaches to management, a discussion of the assistance quantitative approaches can provide, and their limitations and complexities. The more substantive sections deal with data and with data standards and procedures as the foundations for quantitative approaches, information systems, cost and resource information, goals and outcome information, and models and model building. Other sections report on evaluation studies of various quantitative approaches and their general impact, describing factors that influence the use of these new approaches and making some predictions about their future use and development.

See: 13:2.3/78 **A Study of Cost Analysis in Higher Education,** Carl R. Adams, Russell L. Hankins, Gordon W. Kingston, and Roger G. Schroeder.

2.0 FOUNDATIONS

2.1 Dictionaries and Glossaries

10:2.1/79

A Glossary of Standard Terminology for Postsecondary Education, Sherrill Cloud, 121 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This glossary (an update of a 1977 edition) is intended as a reference for those who exchange or collect information throughout postsecondary education—especially those who deal with data in institutions, governmental agencies, and educational associations. It is consistent with other efforts by NCHEMS and the National Center for Education Statistics (NCES) to promote awareness and use of a common language of terms, definitions, and procedures in postsecondary education.

10:2.1/78

Adult/Continuing Education: A Handbook of Standard Terminology for Describing the Learning Activities of Adults, G. Roger Sell, 248 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This handbook provides terms and definitions for collecting and reporting information that describes the learning activities of adults. The terms and definitions in this handbook represent information items that, when used consistently, provide a basis for communication between the various institutions, organizations, and agencies that serve adult learners. The handbook identifies and presents a classification structure of terms and definitions within these major categories, including subdivisions of information categories. A glossary of terms is also provided.

10:2.1/75

Statewide Measures Inventory, Paul Wing, James McLaughlin, and Katherine Allman, 380 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

As indicated by the authors in the introduction: "The Statewide Measures Inventory is essentially a list of items of information, along with concise definitions and other information of interest, relevant to statewide postsecondary education planning and management. It has been designed primarily as a working document for use by State-level postsecondary education planners and decision makers."

The document (NCHEMS Technical Report No. 68) includes a 68-page paper that discusses in nontechnical terms the origins, features, and possible uses of the inventory in state-level planning.

10:2.1/73-1

Data Element Dictionary: Second Edition, Suzette Goddard, James S. Martin, and Leonard C. Romney, 420 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This volume (NCHEMS Technical Report 51) is the only published and regularly revised reference of its type dealing with postsecondary education data definitions and codes. For each data element a concise definition is provided, codes and categories are suggested, and comments are made concerning linkages with other elements, conversions, and relationships to Higher Education General Information Survey (HEGIS) and FICE codes. The appendixes provide other valuable standards associated with data management, classification, and use. The volume is bound in hardback, looseleaf style, designed for regular revision without complete reprinting. Revisions are made regularly and volume owners are provided updates.

10:2.1/73-2

Program Measures, James R. Topping and Glenn K. Miyataki, 245 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This manual (NCHEMS Technical Report 35) was developed as a companion document to the NCHEMS Program Classification Structure (PCS), but is useful to any planner utilizing a similar or modified structure. To use or implement the PCS or a similar approach, various items of information are required to describe each element within the structure. For example, as the authors note in Chaper I: ". . . an activity identified by the PCS is 'instruction in the Physics discipline at the lower-division level.' But just to know the name of the activity is not enough. There is a need to identify the content of this instruction activity: the number of enrollments, the number of courses offered, the number of faculty assigned to teach the courses, etc. Therefore, descriptive information must be associated with the PCS in order for it to be used at all. Moreover, these information items can be arranged or structured in a manner that will facilitate the process of analyzing higher education programs. These categories of information are collectively called 'program measures.'"

See also: 9:1.2/76 **A Classification of Institutions of Higher Education,** Carnegie Council on Policy Studies in Higher Education.

2.2 Measures, Structures, and Procedures

10:2.2/81

A Classification of Instructional Programs, Gerald Malitz, 215 pp. (National Center for Education Statistics, Washington, D.C.).

This classification of instructional programs is designed to facilitate effective communication between the institution providing information and the external organization collecting or receiving information. The volume is intended as a reference tool to assist in the collection, reporting, and interpretation of data about instructional programs.

It is intended to aid those people who design data collection instruments, respond to questionnaires, and compile, verify, and analyze data.

For the first group, the classification provides a universe from which program titles may be selected. The survey respondents and those who compile and verify data can use the classification to clarify where a particular item of data should be reported. Finally, for researchers and analysts, the classification can be a means of understanding the scope or content validity of a particular item of data.

Instructional programs are categorized, defined, and coded. The document contains sections comparing the new classification with previous classifications (HEGIS, Handbook VI) and an alphabetical index. The new classification, developed jointly by NCHEMS and NCES, is intended to replace older classifications used in Federal and state reports and in program classification structures.

10:2.2/80

The Higher Education Finance Manual (HEFM), Richard H. Allen and Douglas J. Collier, 284 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This three-volume reference work on higher education financial reporting contains information needed by institutional and agency staff to understand, produce, and use financial reports. The manual provides a detailed and comprehensive guide to reporting procedures and formats consistent with the generally accepted higher education accounting principles adopted by the National Association of College and University Business Officers, the American Institute of Certified Public Accountants, and the National Center for Higher Education Management Systems.

Volume 1, Data Providers' Guide is designed to assist college and university staff in reporting financial information; it provides a detailed and comprehensive compendium of accounting definitions, describes national standards for financial reporting (including those prescribed for HEGIS reports), and provides the information required to comply with those standards.

Volume 2, Data Users' Guide serves to guide the nonaccountant through the complexities of higher education finance and to help information specialists implement finnacial information systems based on generally accepted accounting principles. Special features of this volume include explanations of: (1) the principles of fund accounting for higher education in easy-to-understand, nontechnical language; (2) the purposes, formats, and limitations of the three principal types of financial statements; (3) institutional and state-level considerations in developing a reporting system based on the HEFM accounting and reporting procedures; (4) the relationship between the HEFM functional expenditure categories and the NCHEMS Program Classification Structure.

Volume 3, The Source/Use Concept presents an innovative format for financial reporting—a matrix displaying revenue sources and expenditure categories simultaneously. It presents institutional financial operations in a simplified graphic form that can easily be understood by administrators, legislators, donors, and the general public. The volume explains how to implement the format at both institutional and state levels.

10:2.2/79-1

Alternative Conceptual Approaches: Information Exchange Procedures for Major Research Universities, James R. Topping and Ed Myers, 128 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This handbook is a set of procedures designed and developed by NCHEMS in recognition that NCHEMS Information Exchange Procedures do not adequately describe the complex research institution.

While this document has been carefully developed with the assistance of an advisory committee from six major research universities, it has not yet been pilot tested for practical feasiblity. Its purposes are essentially the same as those of the NCHEMS Information Exchange Procedures (see also 10:2.2/76), even though the approach to the task is significantly different.

10:2.2/79-2

PSE (Postsecondary Education) Information Planning at the State Level, Roger Bassett, Sherrill Cloud, and Anahid Katchian, 470 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This set of five separately bound documents is designed to help state-agency leaders, analysts, and information systems staff make an efficient and effective match between agency responsibilities/staff agenda and agency information requirements. An underlying theme of all the documents is the recognition that each state has unique responsibilities and analytical requirements, as well as different histories, traditions, and philosophies, and thus needs an individualized information system. This individualization requires that each state agency review its authority and responsibilities regarding the postsecondary education enterprise and recognize the need for ongoing communication with the institutions.

Volume 1, Overview, is a brief description of purpose of the study of postsecondary education information planning at the state level.

Volume 2, Planning Guide, provides a context for understanding the major environmental and procedural factors influencing the development of state-level information systems. Specifically, it discusses assessment of the developmental environment (agency authority and role, institutional concerns), selection of a procedural approach to information system planning, assessment of information needs generally, selection and evaluation of specific data elements, and assessment of resource requirements (staffing, computer and systems support, institutional costs).

Volume 3, Selection of Data To Address Planning Issues, a companion to the *Planning Guide*, provides a framework for reviewing common state-level planning issues, the questions that focus analysis on those issues, and the general data requirements associated with the more common questions and analyses. The document includes a section summarizing references to applicable data sources (in either published or machine-readable format), including, when possible, descriptions or examples of these sources. The glossary section of the document contains standard data definitions and suggested categories for collecting and presenting data.

Volume 4, Pilot-Test State Case Studies, describes the background and functions of eight pilot-test state agencies, their approaches to information systems, and their planning responsibilities (comprehensive planning, budgeting, program review). Each agency's data set is described, and each state's information system costs are summarized. This document also discusses attempts to develop state-level information about adult and continuing education in two pilot-test states and about educational outcomes in two others.

Volume 5, Systems-Related Experiences in Eight Pilot-Test States, as companion to the *Case Studies*, describes pilot-test state experiences with systems development, including evaluation of information needs, hardware and software choices, survey administration, staffing considerations, data organization, and data storage and linkage considerations. The ranges of developmental costs among pilot-test state agencies are summarized, and difficulties in obtaining reliable and informative cost data are discussed.

10:2.2/79-3

Library Information Handbook: A Handbook of Standard Terminology for Reporting and Recording Information About Libraries, National Center for Higher Education Management Systems, 313 pp. (NCHEMS, Boulder, Colo.).

This reference handbook provides a framework of information and a data set intended to: (1) provide an informed basis for library management and planning; (2) facilitate information exchange and communication among libraries; and (3) forward a common language and a framework for external reporting.

It is comprehensive in scope, suggesting formats, structures, and definitions. In addition, it deals with using the information for internal planning and management, as well as external reporting and exchange of information.

See: 13:2.3/79 **Cost Information and Formula Funding: New Approaches,** Richard H. Allen and James R. Topping, eds.

This document derives from a conference sponsored by several national higher education organizations concerned with the impact of cost information on statewide budgeting and planning. It marks the formal beginning of a search for new approaches to formula funding, stimulated by the failure of existing formulas (based on average per-student costs) to reasonably approximate the actual decline in costs associated with enrollment decline.

As it becomes increasingly probable that enrollments will decline through the 1980s—by as much as 25 to 30 percent in some states—the potential negative impact of applying present day formulas in this kind of environment has become a major concern. This concern arises from the fact that almost all budget formulas are based largely or entirely on average costs (so many dollars per student).

It has long been recognized that in higher education, as in most other enterprises, actual costs do not behave in a straightforward fashion. Rather, costs respond in a variety of ways to volume changes, as well as to environmental and policy changes.

When enrollments were increasing rapidly, many institutions found that average-cost formulas worked to their advantage. The formulas generated additional funds that could be used to increase the quality of existing programs, as well as to develop new programs and reach new clienteles. This was possible because the costs of adding new students in *existing* programs did not rise proportionately with increases in enrollments. Unfortunately, the inverse is also true. When enrollments decline, overall costs do not decline proportionately. Therefore, if formulas reduce institutional revenue on a per-student basis, institutions may be forced to reduce quality, drop programs, and restrict clientele.

The document describes the general problem, considers alternative approaches to funding formulas, and documents the experimental efforts of several states.

10:2.2/78

State-Level Postsecondary Education Financial Reporting, Richard H. Allen, 175 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This document reflects the status of state-level financial reporting structures and of the NCHEMS Higher Education Finance Manual expenditure and revenue categories as of January 1, 1978. The document will be updated periodically by the combined efforts of the State Higher Education Executive Officers, the National Center for Education Statistics, and the National Center for Higher Education Management Systems. It is intended to assist state-agency staff in reading and understanding financial data from other states and to highlight the areas in which adjustments may be needed before financial data can be used for interstate comparisons. The looseleaf binding is designed to facilitate updating.

10:2.2/77-1

A Common Core of Data for Postsecondary Education, Marilyn McCoy, 17 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

Toward a Postsecondary Education Data Core, Marilyn McCoy, 230 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

These two documents (the first executive summary) are initial drafts of a manual designed to identify Federal postsecondary education planning issues and the data needed to address those issues. The work, sponsored by the National Center for Education Statistics and conducted by NCHEMS, is expected to lead to the development of a clear framework for Federal postsecondary data collection as a basis for facilitating data coordination across the many Federal agencies that collect data needed for postsecondary education planning.

10:2.2/77-2

A Manual for Budgeting and Accounting for Manpower Resources in Postsecondary Education, Dennis P. Jones and Theodore H. Drews, 66 pp. (U.S. Government Printing Office, Washington, D.C.).

This manual is the product of a 6-year joint effort by the National Center for Education Statistics (NCES) and the National Center for Higher Education Management Systems (NCHEMS). While most institutions of postsecondary education have mariginally acceptable personnel systems, their capacity to acquire and use manpower resource data is considerably less well developed. Manpower resource data are those most relevant in the context of planning and accountability and, thus, the subject of much data exchange and reporting.

The manual describes, in detail, the basic elements of an information system designed to support the management of manpower resources in institutions of postsecondary education. The system is compatible with the NCHEMS *Program Classification Structure* and the NCES *Higher Education General Information Survey*.

10:2.2/77-3

The Outcomes Structure: An Overview and Procedures for Applying It in Postsecondary Education Institutions, Oscar T. Lenning, 79 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This document is designed specifically to describe practical uses of the NCHEMS *A Structure for the Outcomes of Postsecondary Education* (13:1.3/77-3), as well as detailed procedures for its implementation in institutions. It provides an overview of the structure and is very helpful to individuals who wish to introduce trainees to the structure and its uses.

10:2.2/77-4

Previous Attempts To Structure Educational Outcomes and Outcome-Related Concepts: A Compilation and Review of the Literature, Oscar T. Lenning, 231 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

Over the years, there have been many attempts to structure and order educational outcomes so that the relationship of outcomes and outcome-related concepts to one another and to other factors can be clearly shown. Establishing such relationships is an important aspect of both planning and evaluation.

This document reviews the frameworks of more than 80 previous attempts to structure educational outcomes and related concepts. It is useful to the planner who would like to consider different approaches developed in differing contexts, and it is, of course, extremely valuable to the individual interested in conducting research on outcomes.

10:2.2/77-5

Program Classification Structure: Second Edition, Douglas J. Collier, 65 pp. National Center for Higher Education Management Systems, Boulder, Colo.).

As the author states in the introduction: "The Program Classification Structure is a set of categories and related definitions which allows its users to examine the operations of a postsecondary education institution as they relate to the accomplishment of the institution's objective. Specifically, the PCS is a logical framework for arraying information in a hierarchical disaggregation of programs in which a program is defined as an aggregation of activities serving a common set of objectives."

The first edition, published in 1972, was the culmination of 2 years of work by representatives of all sectors of higher education. It has been adopted by hundreds of higher education institutions, by many state-level planning agencies, by most Federal-level educational planning agencies, and by institutions in several foreign countries.

The second edition (NCHEMS Technical Report 101) includes changes in the nature of planning and management that have accrued since the early 1970's. It also recognizes the evolving nature of "postsecondary" education as compared to the more traditional concept of "higher" education.

10:2.2/76

Introduction to Information Exchange Procedures: A Guide for the Project Manager, Gary S. Gamso and Allan L. Service, 115 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

The NCHEMS Information Exchange Procedures (IEP) are a standard set of data definitions and procedures for collecting data for use by postsecondary education institutions to produce compatible information useful both for comparison of internal activities and for exchange and comparison with other campuses. The information produced by these procedures includes instructional outcomes, institutional costs, and descriptive characteristics data. While NCHEMS advises against the use of IEP for state planning—and encourages the use of its State-Level Information Base Procedures—several states do use IEP with considerable satisfaction.

This document (NCHEMS Technical Report 76) is intended to help the administrator by describing briefly the IEP and related issues and by providing a guide to planning and organizing an IEP implementation effort. If a decision is made to implement IEP, the guide's documentation and supporting software must be obtained.

10:2.2/75

Outcomes Measures and Procedures Manual, Sidney S. Micek, Allan L. Service, and Yong S. Lee, 335 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This manual (NCHEMS Technical Report 70) defines a wide range of measures of the outcomes (results or impacts) of postsecondary education institutions and their programs, and suggests procedures for acquiring the data needed for each measure. An overview of the manual provides the context and procedures for its use. Measures and procedures are divided into three major categories: student growth and development, new knowledge and art forms, and community impact.

10:2.2/74

An Examination of Possible Statewide Applications and Extensions of NCHEMS Program Classification Structure, Paul Wing and Leonard Romney, 62 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This reference book (NCHEMS Technical Report 50) does exactly what its title implies—suggests possible applications and extensions of

NCHEMS Program Classification Structure for statewide planning. In so doing, it touches upon the sensitive question of how much detail is needed within the data required for statewide planning. The document does not purport to be a standard or a policy statement. It is designed as a reference for those who wish to utilize the Program Classification Structure at the state level.

See also: 5:6.0/A-4 **Higher Education Prices and Price Indexes,** D. Kent Halstead.

13:1.3/77-3 **A Structure for the Outcomes of Postsecondary Education,** Oscar T. Lenning, Yong S. Lee, Sideny S. Micek, and Allan L. Service.

36:1.4/71-1 **Higher Education Facilities Planning and Management Manuals,** Harold L. Dahnke, Dennis P. Jones, Thomas R. Mason, and Leonard C. Romney.

3.0. ANALYSIS

10:3.0/81

Planning Models for Colleges and Universities, David S.P. Hopkins and William F. Massy, 544 pp. (Stanford University Press, Stanford, Calif.).

John Kemeny points out in the forword to this book that management science models can contribute a great deal to furthering the goal of effective planning in colleges and universities. The authors describe a large number of such models, most of which were developed at Stanford from 1973 to 1979. Categories of models include: financial forecasting; incremental costs and revenues; long-run financial equilibrium (including determination of the payout rate on endowments); financial decisions under uncertainty; faculty staffing, tenure ratio, and retirement projection; student enrollment and admissions yield; and tradeoffs among competitive demands for resources. Comprehensive descriptions of the models and discussions of their application are provided.

The first chapter of the book represents a general overview of the use of models in higher education and pitfalls to be avoided. The second chapter recounts in some detail the authors' experience in applying models at Stanford—with emphasis on the interplay of models and organizational dynamics in setting the target for the 3-year, $10.5 million program of budget adjustments instituted by Stanford in 1974. The next chapter sets forth the first comprehensive mathematical-economic theory of utility maximization, subject to financial, productivity, and market constraints, for nonprofit enterprises, with special emphasis on colleges and universities. The authors provide advice on starting and implementing modeling in the academic environment throughout the book, but especially in the final chapter.

10:3.0/80

Costing for Policy Analysis, National Association of College and University Business Officers and National Center for Higher Education Management Systems, 82 pp. (NACUBO, Washington, D.C.).

This report describes a costing process that can assist managers in estimating how certain institutional costs change in response to volume, policy, and environmental factors. Four case studies are presented using the procedures. The results of the studies can enable managers and analysts to better understand the process of determining the relationship of cost functions to various factors at their institutions.

See: 29:2.5/79-1 **Financial Planning Models: Concepts and Case Studies in Colleges and Universities,** Joe P. Wyatt, James C. Emery, and Carolyn P. Landis, eds.

This report derives from a 3-day workshop held in 1978 on the application of financial planning models in colleges and universities. It documents the approaches to and experience of a select set of colleges and universities involved in the continuing development of computerized planning models, and represents the best state-of-the-art compendium available in 1979 (see 10:3.0/81 for later models). For an evaluative description of the development of computer-based planning models, see 10:1.0/81.

10:3.0/77

The State Planning System Documents, Roger Bassett, Ellen Cherin, Mark Chisholm, and Vaughn Huckfeldt, 1,808 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

The *State Planning System Documents* are a series of 12 volumes designed to introduce, describe, and comprehensively document the State Planning System (SPS). They also serve as excellent general references for those interested in using models in planning, even if they elect not to use the State Planning System. This entry stands alone because all relevant works of significance are discussed and referenced. The volumes are a cohesive, related set of documents designed to provide the reader with increasing levels of detail. The numbering sequence suggests a reading order probably intended by the authors. The executive-level planner seeking an overview is advised first to read Technical Report 89. Each of the volumes is separately annotated below.

Modeling and SPS, Technical Report 89, is designed for the executive-level planner. The first section of this volume discusses the contributions mathematical modeling can make to planning; reviews major national efforts to apply modeling to postsecondary education planning; provides criteria for selecting a model; and discusses major criticisms of modeling and directions for further development. The second section reviews the efforts of eight states in the use of models and provides a list of 17 criteria intended to guide model users in planning and evaluating agency modeling efforts. The third section, describes the State Planning System as a modeling tool. While not explicitly stated, the authors have attempted to respond to the criticisms of modeling described in the first section. The SPS offers to the planner, with a modicum of analytical and computer staff support, a complete system for designing a model to address a particular problem or set of problems and for operating a home-built model using the SPS software. Implicit in this system is the notion that models must be patterned to respond to specific decision problems.

Introduction to SPS, Technical Report 86, acquaints the user with: the purpose of the SPS, the typical internal calculations in an SPS design, the report preparation capabilities of the SPS, and the NCHEMS implementation policy for the SPS.

SPS General Training Manual, Technical Report 87, contains copies of the visual-aid displays used in workshops and general training seminars on the SPS.

SPS In-State Training Manual, Technical Report 88, contains copies of the visual-aid displays used in the training workshops conducted during implementation of the SPS.

Theoretical Concepts Used in SPS, Technical Report 90, discusses the mathematical theory related to the optimization capabilities of the SPS.

SPS Case Studies, Technical Report 91, describes the SPS implementation experiences of several states. This includes documentation of specific design relationships within the SPS that deal with specific policy issues or questions. The discussion includes procedures for developing a design, information on coding a design for entry into the SPS, and examples of various designs.

SPS Data Procedures, Technical report 93, specifies procedures for locating and preparing data for input to the SPS, discusses the use of the SPS as a statistical tool for estimating parameter values as inputs to the SPS, and notes certain national data sources useful to SPS users.

SPS Software Installation Guide, Technical Report 94, contains the technical information necessary for the installation and checkout of the SPS on a new computer system. This includes information on the conversion that may be necessary in adapting the programs, copies of the test decks and the expected output, and a discussion of the software procedures necessary to run the SPS program.

SPS Software Documentation, Technical Report 95, contains the programming conventions, flow charts, lists of variables, and computer program listings for the SPS.

SPS Operation Guide, Technical Report 96, discusses the general operating instructions for the SPS with an existing set of files, and the procedures for creating new data, design, and control files for use with a new design.

SPS Summary Operating Instructions, Technical Report 97, contains information about operating the SPS on a specific computer system for a specific state.

11

Philosophy of Higher Education

Kenneth D. Benne
assisted by Victor Kestenbaum

No circle can be drawn around the aspects of practice and policy that belong primarily or exclusively within the domain of philosophic studies of higher education. Empirical studies, in contrast, can be demarcated one from another by the particular aspect of practice or policy that they describe and conceptualize, whether that aspect be governance, curriculum design, institutional management, faculty rights and responsibilities, or some other. Any and all of these aspects of college and university life and experience, and other features as well, also can be studied philosophically.

The distinction between philosophical studies and empirical studies lies in the kinds of question put to the subject matter under study and in the ways in which these questions are studied. For example, criticisms of the purposes served by institutions of higher education and credal statements of the purposes of a given institution are common throughout the literature of higher education. But such criticisms and statements seldom qualify as instances of philosophizing. All institutions engage in more or less thoughtful choices among alternative plans and courses of action. But actual choices may involve little or no analysis or criticism of the concepts employed, the methods of reasoning and justification utilized, or the decision criteria applied. It is to the analysis and criticism of concepts, reasonings, justifications, and criteria that the philosopher addresses his or her intellectual efforts.

Of course, philosophizing is by no means the exclusive prerogative of professional philosophers. Some of the most significant contributions to philosophy in the history of Western civilization, including the philosophy of education, have come from amateurs. One need only recall that Socrates was a stone-cutter, Marcus Aurelius a Roman emperor, Spinoza a lens grinder, Comenius a Moravian bishop, and Rousseau an eighteenth century hippie to lend credibility to this observation. This is one reason why publications by authors who are not professional philosophers of education are included in this bibliography.

There are other reasons for this decision. One of these stems from the condition under which the professionalization of educational philosophy has taken place in America. The professional preparation of philosophers of education has, for the most part, been sponsored by schools of education that are engaged in training teachers and administrators for work in elementary and secondary schools. And the principal place of the philosopher's employment after graduation has been schools of education with a similar mission. As a result, their acquaintance and concern with education has tended to focus on programs, policies, and institutions of precollegiate schooling. The normative issues surrounding the practice of higher education have received little direct attention from most professional philosophers of education.

This observation is not intended to imply that many studies in educational philosophy by professional philosophers of education have no important bearing on the issues of higher education. For some educational issues are common to all levels of education, elementary through graduate schools. Nor is it meant to imply that philosophic treatment of normative issues specific to higher education has been completely neglected either by professional or amateur philosophers of education. Such literature is often prepared for a general rather than a professional audience. It offers deeply felt and thoughtfully argued treatments of issues confronting higher education. This bibliography does not omit technical treatments of issues in the philosophy of higher education where these are available. But it also includes broadly public discussions of issues of higher education where these are philosophic in temper. Such public statements often project policies and programs that present significant alternatives to currently institutionalized programs and policies. To qualify as philosophic, recommendations of futuristic alternatives must be bolstered by responsible criticism of existing institutions of education and supported as desirable by reasoned arguments. Such work adds speculative methods of philosophizing to the critical and analytical methods already emphasized.

As noted before, philosophizing about higher education is not limited to any special aspect of educational practice or policy. The aspects dealt with in recent literature have been determined by the interests of those philosophizing and by their sense of what issues and concepts are currently most in need of philosophic questioning and clarification. Bibliographic entries have been classified under six categories.

Current Status of Professional Philosophy of Education in America. Although much of the literature of professional philosophy of education in America focuses on issues and concepts important in contemporary schooling in general, rather than in higher education per se, many of the issues dealt with are *pertinent to problems confronted at college and university levels. Thus, this bibliography includes several comprehensive surveys of current professional philosophizing about education.*

Aims and Purposes of Higher Education. American higher education today is experiencing some confusion and conflict concerning its priorities. Philosophic treatments of the aims, purposes, and functions of higher education have attempted to clarify some of the roots of this confusion. With the acceleration of specialization and vocationalization in universities, both in their research and instructional programs, and the accompanying pressures toward specialization and vocationalization in undergraduate education, the fate and future of liberal and general education is in doubt. This subsection includes philosophic treatments of the prospects for general and liberal education.

Organization and Governance of Higher Education. In recent years, colleges and universities have begun to borrow administrative forms and practices from industry and business for managing their institutional affairs. The resulting management changes have sometimes clashed with the traditional ideal of the university as a community or guild of scholars. The borrowings have not been based on a theory of educational systems as distinctive in their mode of organization and operation. A few treatments of the organization of educational systems and their control are philosophic in character and quality.

Questions about changing patterns of university governance have inevitably raised related questions about academic freedom for faculty members and its attendant responsibilities. A few philosophic treatments are available. Finally, student protests in the 1960's raised fresh questions about the rights of students in college and university life and governance. Philosophic analysts have both discounted and justified student rights.

Educational Policy. One contemporary development within professional philosophy of education has linked philosophic and policy studies of education. Questions about public and social morality and ethics have emerged from this linkage and have received some philosophic scrutiny.

Experiential Learning. A prominent slogan in student protests against colleges and universities in the 1960's was a demand for greater "relevance" in education. One result of this demand has been an increase in the amount of "experience-based learning" in processes of college instruction. The polar terms to "experiential learning" in popular discussions are usually "didactic instruction" and "classroom learning." Emphasis on "experiential learning" has come also from older students who seek advanced standing in collegiate programs on the basis of knowledge and skills achieved through experience outside the regimen of classroom instruction. Some recent studies have explored the epistemological basis of "experiential learning" in relation to that of "classroom learning."

Lifelong Learning and Continuing Education. Responsibility for the education of persons beyond the age of late adolescence was first assumed by American colleges and universities within the land-grant tradition through their agricultural extension services. Gradually, the content of extension offerings spread from knowledge of agriculture and home economics to include nearly all fields of knowledge, and general extension services have become part of the program of most colleges and universities, not just the land-grant institutions.

Further, changes in technology have compelled refresher training for persons active in many professions. Colleges and universities have assumed responsibility, along with other agencies, for the refresher training and reeducation of adults in various professional fields. And they have responded, though perhaps with less alacrity, to demands by adults for reeducation in civic and personal orientation as well. An unfamiliar population of students, often part-time, and the multiplication of off-campus programs have raised fresh issues with respect to policy and program that require philosophical clarification.

TOPIC ORGANIZATION

11: Philosophy
- **1.0** Current Status of Professional Philosophy of Education in America
- **2.0** Aims and Purposes of Higher Education
  - **2.1** The University and the College
  - **2.2** Prospects for Liberal and General Education
- **3.0** Organization and Governance of Higher Education
  - **3.1** The Educational System and Its Control
  - **3.2** Academic Freedom: the Rights of Teachers and Students
- **4.0** Educational Policy
- **5.0** Experiential Learning
- **6.0** Lifelong Learning and Continuing Education

1.0 CURRENT STATUS OF PROFESSIONAL PHILOSOPHY OF EDUCATION IN AMERICA

11:1.0/81

Philosophy and Education, Eightieth Yearbook of the National Society for the Study of Education, Jonas Soltis, ed. 305 pp. (N.S.S.E., distributed by the University of Chicago Press, Chicago).

Like other yearbooks of the N.S.S.E., this volume is designed to provide educators with a synoptic view of the current state of scholarship and research in one or another specialized field of educational studies, in this case, philosophizing about education. The latest previous N.S.S.E. yearbook devoted to educational philosophy was published in 1955.

The emphases and preoccupations of philosophers of education in 1981 have changed markedly from those in 1955. Harry Broudy seeks to account for these changes by tracing the development of philosophy of education as a field of graduate study during the intervening quarter of a century. Prominent in his account is the accelerated professionalization of philosophical studies in education. For the first time in the history of education, most persons now professing the philosophy of education in American colleges and universities have been educated in specialized doctoral programs in universities. A considerable part of the studies required in such programs has been in one or another *specialty* within departments of academic philosophy, though the programs ordinarily are administered by university schools or colleges of education.

Given this, it is not surprising that 7 of the 10 chapters in the yearbook are based on subareas of study within academic philosophy—epistemology, aesthetics, logic, ethics, social and political philosophy, philosophy of science, and metaphysics. The author of each chapter was asked to begin the discussion by thinking of an educationally important problem, issue, or phenomenon that could be illuminated by and located in his or her chosen subarea of philosophy. Each author was asked also to engage the readers in a process of philosophical thinking. Thus, the aim of the book is *not* to present a compendious review of the literature of a subarea of academic philosophy or of related literature in the philosophy of education, but rather to demonstrate that and how philosophy can be used to clarify cognate issues in the policy and practice of education.

In his treatment of epistemology, Jonas Soltis identifies various forms of knowing. These stem, at least in part, from the fact that each different kind of human experience requires different ways of justifying relevant knowledge claims. Awareness by teachers of the distinctive epistemological bases of the subject matter they teach should enable them to help students acquire appropriate discipline in processing knowledge claims arising from various subject matters.

In her treatment of aesthetics, Maxine Greene seeks to give educational meaning to "aesthetic literacy." She rejects views of experience in the arts as inherently ornamental, therapeutic, or peripheral, and argues that the aesthetic domain is pervasive throughout life and education.

Robert Ennis explicates a conception of rational thinking and argues for its incorporation into the goals of education and into various areas of educational practice. His view of rational thinking goes well beyond formal logic and includes also creative, valuational, and attitudinal elements required by rational thinkers in action.

Clive Beck argues that the study of ethics is an essential element in sound values education. He criticizes four recent approaches to values education for their partiality, finding his more inclusive "reflective" approach to be more appropriate for education in a pluralistic society like our own.

Kenneth Strike draws on the resources of social and political philosophy as well as on legal and social science literature, in formulating a consistent moral theory that he sees as useful in guiding educational policy-making with respect to educational desegregation. D. C. Phillips draws on the resources of philosophy of science in demonstrating a way of assessing educational research that purports to be scientific. And James McClellan argues that any defensible theory of human values must be grounded in a comprehensive theory of the world and of man as a part of that world. He argues further for "materialism" as the most plausible world view. His "materialistic first philosophy" leads, he believes, toward a revolutionary political commitment in life and education.

The two substantive chapters of the yearbook not grounded in a subarea of academic philosophy draw directly on the accumulating literature of philosophy of education. The first, by Jane Martin, takes curriculum theory as its philosophical context and focuses on the persistent Western idea of liberal education. She criticizes the view of liberal education as mental development through the achievement of disciplined knowledge as exemplifying the "epistemological fallacy," i.e., arguing from the nature of knowledge to what ought to be learned. She argues that choosing curricular content and objectives requires value judgments about educational purposes and that these, in turn, are related to a moral, social, and political order believed to be desirable. The other chapter, by Donna H. Kerr, treats the problem of judging the quality of teaching. According to Kerr, such judgments need to be based on a general theory of teaching, seen as a theory of practice. Using "action language," she seeks to specify and clarify the components of an adequate theory of teaching.

11:1.0/79

"Philosophy of Education Since Mid-Century," Jonas Soltis, guest ed. *Teachers College Record*, Vol. 81, No. 2, pp. 127-248.

In this issue of the *Teacher's College Record*, six professional philosophers of education provide a nontechnical account of some of the main currents in philosophic studies of education during the past quarter century. The account is tied loosely to the Eightieth Yearbook of the National Society for the Study of Education (11:1.0/81).

An article by Harry Broudy, "Philosophy of Education Between Yearbooks," closely follows his account in the yearbook of directions taken by philosophy of education in recent years. And the article by Jonas Soltis, "Philosophy of Education for Educators: The Eightieth N.S.S.E. Yearbook," provides a synopsis of the essays published in that volume. The other four articles represent a different slice through recent philosophizing about education from the cross-section provided by the yearbook. Each of the authors offers an account and a justification of a distinctively different approach to educational philosophizing.

Richard Pratte deals with analytic philosophy, which in America has been strongly influenced by recent developments in philosophy and the philosophy of education in England. Its exponents eschew philosophic speculation and, in Pratte's words, renounce an affinity to affairs of the heart and to interpretation of the world as we know it. The chosen, limited task of philosophizing, in this view, is to work within the limits of reason and to focus effort on the structure and precision of language meanings. Philosophers do not inquire into issues—rather, they attempt through analysis of language and concepts to sharpen the tools of inquiry. Pratte illustrates the work of analytic philosophy by providing a skeletal analysis of three educationally relevant concepts—conditions of knowledge, teaching, and education. He notes several other concepts that have been analyzed and presumably clarified by analytic philosophers, including needs, adjustment, indoctrination, and judgment.

Donald Vandenberg deals with "Existential and Phenomenological Influences in Educational Philosophy." If the homeland of analytic philosophy is England, the homeland of phenomenology and existentialism is continental Europe. Vandenberg recognizes that he is dealing with a hybrid in philosophy: phenomenology remains in the domain of knowledge; existential phenomenology uses the methods of phenomenology to investigate the conditions of human existence, including the affective and volitional domains of experience as well as the cognitive. Vandenberg's well-documented article traces the increased scope and depth of existential and phenomenological studies of education in America since World War II and offers a polemic against the detractors of these studies.

In the period between World Wars I and II, the preeminent secular philosopher of education in America was John Dewey. Since World War II, analytic philosophy and existential phenomenology have crowded Dewey and his followers from the center stage. Joe Burnett, in his essay, "Whatever Happened to John Dewey?," seeks both to account for the reduction of Dewey's influence and to argue for the continuing fruitfulness of his philosophic orientation in educational studies. Burnett writes with the conviction "that most perspectives on the role of John Dewey in American education are very partial and/or very distorted." One source of distortion, Burnett finds, is a widespread and uncritical identification of Dewey with the progressive movement in education. Burnett identifies two inconsistent strands in progressive critiques of and attempts to reform traditional education. One strand is based on a pragmatic and experimental theory of knowledge that is consonant with Dewey's thought. The other, non-Deweyan strand, which Burnett calls romantic naturalism, is grounded in a view of the goodness of human nature, advanced by Rousseau and Pestalozzi. Burnett confutes the view of Dewey as the uncritical glorifier of the political and economic institutions of our industrial society with trenchant quotations from Dewey. Finally, Burnett argues that Dewey's philosophizing about aesthetics and religion, which was developed late in his career, has not been adequately integrated into Deweyan educational philosophy.

Thomas Green builds his essay. "Philosophy and Policy Studies: Personal Reflections" around an "overarching point"—"If philosophers of education become heavily engaged in the practical, muddy, and indecisive tasks of making public policy...they are likely to learn a great deal that is philosophically useful." Green builds his case on his own personal experiences in a project of planning and developing a new school district coextensive with the zoned boundaries of a "New Town Development." Perhaps his principal learning was that the study of public policy is the study of public virtue and its spread both in the community and in its leaders. The formation and spread of public virtue present important problems for the philosopher of education.

11:1.0/77

On the Philosophy of Higher Education, John S. Brubacher, 143 pp. (Jossey-Bass, San Francisco).

This volume is the only recent work by a professional philosopher of education that deals with a wide spectrum of issues of concern primarily to students and practitioners of *higher* education in America.

The work is organized around eight questions that underlie policy controversies in current discussions and debates about higher education. (1) How is the claim by institutions of higher learning, particularly universities, to primary responsibility for the advancement and propagation of sophisticated knowledge legitimized? (2) Should the university, as a "community of scholars," be autonomous in decisions about teaching and research? (3) Should the faculties of institutions of higher education enjoy academic freedom? (4) Among prospective clients, who are competent to learn and to extend a curriculum of sophisticated knowledge? (5) With vocational and professional programs of instruction entrenched in most universities, what is the place of liberal or general education in the curriculum of higher education? (6) What is the best pedagogy for teaching and learning sophisticated knowledge? (7) What ethical obligations are entailed by a learning well above the level of ordinary education? (8) Is there a useful sense in which the pursuit of the higher learning has religious connotations?

The author's aim is not to settle or answer the eight questions, but rather to clarify and illuminate the values at stake in their solution. His method is to identify the major viewpoints currently taken with respect to each question under consideration and the arguments advanced by proponents of various viewpoints. He analyzes and criticizes the arguments, both in terms of their assumptions and of their consequences, if taken as a basis for policy and practice.

11:1.0/73

Educational Reconstruction: Promise and Challenge, Nobuo Shimahara, ed., 433 pp. (Charles E. Merrill Publishing Co., Columbus, Ohio).

This book consists of 19 essays written by 20 authors. Though the authors differ in the academic disciplines they profess and in the philosophies of life they espouse, they are united by two assumptions. The first assumption is that we are living in a culture in crisis—"cultural universals" are eroded or nonexistent, and "cultural alternatives" are multiplying more rapidly than viable "cultural universals" are being constructed or reconstructed. The second assumption is that educational programs must, in a time of crisis, renounce their traditional role of cultural transmission and become agents of personal and cultural transformation and renewal. These assumptions undergird the educational philosophy labeled "reconstructionist." It is often associated with Theodore Brameld, one of its best known advocates, though it includes many of the more politically and educationally radical proponents of John Dewey's philosophy. Its approach to the study of educational issues is multidisciplinary, drawing resources from the various social sciences and humanities.

The editor divides the essays into three sections. In the first of these, "Promise: A Theoretical Framework for Cultural and Personal Renewal," Theodore Brameld argues for a prophetic perspective toward educational issues in which the search is for magnetic, compelling educational goals that are global in scope. Processes of personal and cultural renewal are discussed from five disciplinary perspectives—anthropological, by Robert Nash; psychological, by Robert Jay Lifton; political, by Thomas Hunt; historical, by W. Warren Wagar; and philosophical, by Howard Ozmon.

The second section, "Challenge: Practical Approaches," includes seven essays. Michael Apple presents a discussion of curriculum design consistent with the goals of personal and cultural renewal. Kenneth Carlson treats instruction in social studies as an instrument of cultural transformation. Morse Peckham argues for educational experiences in the arts as a way of cultivating radical sensitivity in students. Maxine Greene sees the active involvement of students and teachers in planning, directing, and conducting learning projects as a required radical way of teaching and learning. Elise Boulding describes several extant types of futuristic studies and argues for the superiority of the transcendent or eschatological type, associated with Fred Polak, and for intentional learning communities as a medium to help persons image a desirable future for mankind. Morris Mitchell and Bart Sobel argue that bureaucratic organization is inimical to reconstructionist education and image an alternative form for a futuristic education. Robert Arlett argues for humanistic uses of technology.

The third section, which includes five essays, is titled "Promise and Challenge As Synthesis: Toward a Radical Pattern of Educational Direction, Authority Relationships, and Ethics." William Boyer outlines and argues for reconstructive planning as opposed to planning for uncriticized expansion and growth. Myles Horton argues for participative decisionmaking processes that become an important medium of humanistic education, and Lionel Etscovitz analyzes the nature of educational processes that support persons in developing personally congenial and socially relevant commitments. Authority relationships in education have usually been conservative in effect and oriented to the transmission of traditional culture. Paul Nash envisions radical changes in authority relationships in education to bring them into support of reconstructionist goals. The concluding essay, by Kenneth D. Benne, is entitled "Toward a Morality of Hope for the Future." In his essay, Benne identifies the basic assumptions of American culture that now accentuate cultural crisis and lead contemporary men and women to immobilizing despair or to desperate actions. He argues for alternative assumptions that will engender and justify hope for a viable human future.

2.0 AIMS AND PURPOSES OF HIGHER EDUCATION

2.1 The University and the College

11:2/78

The Perpetual Dream: Reform and Experiment in the American College, Gerald Grant and David Riesman, 474 pp. (University of Chicago Press, Chicago).

Grant and Riesman did not write their book with the intention of settling questions concerning the philosophical meaning of educational reform and innovation in American higher education, particularly those questions connected with the reappraisal of the undergraduate curriculum. Instead, the authors sought to clarify the kinds of choices that are possible, and, in fact, have been made in certain institutions. Their work is intended to "create a sober sense of the realities and dilemmas of reform." Not surprisingly, the realities and dilemmas, as well as the general and specific issues associated with reform, merge into philosophical questions, making this work a valuable casebook for the study of current philosophies of higher education.

Virtually the entire book is composed of ethnographies of six institutions representing what the authors call "telic reforms," (i.e., involving fundamental redefinition of the goals of college education) and "popular reforms" (i.e., instated as a response to specific social and political developments). For models of telic reforms, the authors chose St. John's College (Maryland) as an example of the "neoclassical revival", Kresge College (Santa Cruz) as an example of the "communal-expressives", and The College for Human Services (New York City) as an example of the "activist-radical impulse." As models of popular reform, Grant and Riesman selected New College (Florida), the Cluster Colleges at Santa Cruz, and two experimental colleges in New Jersey—Ramapo College and Stockton State College. Although they do not provide an explicit structure for the book, the following categories of analysis can be seen in the authors' examination of telic reforms, and, though more implicit, can be discerned in their treatment of popular reforms as well: students' primary motivations, institutionally valued ends, model for the institution, norms or core values, style of education, historical roots, and ground of authority.

Grant and Riesman conclude their study with a "modest proposal" for a more "coherent pluralism" to be achieved through experimentation with core programs. Coming as it does at the conclusion of their exhaustive study of the "realities and dilemmas" of six innovative institutions, the authors' discussion of this concept—this very old, and some might say tired, concept—gives new meaning to the ideal of an "intellectual community."

11:2.1/73-1

"The Very Ideal of a University," Harold Alderman, *Dewey and His Influence: Essays in Honor of George Barton*, Robert C. Whittemore, ed., pp. 1-13. (Martinus Nijhoff, The Hague).

Harold Alderman begins by contrasting the title and purpose of his paper with those of John Henry Cardinal Newman in *The Idea of a University*. Whereas Newman's work was an argument for a university to be founded (the University of Dublin as a Catholic university), Alderman's concern is with the defense of an established institution against various ideological attacks. For Newman, the idea of *a* university was questioned; for Alderman, the *very idea* of a university is questioned by those claiming to know what it is and what its promises and failures are.

Set in this contemporary context, Alderman's thesis is that "...the unique role of the university is to enact a care for human temporality." His thesis is grounded in Martin Heidegger's phenomenological description of temporality. In Heidegger's view, the human being as temporal may be owned *(eigentlich)* or disowned *(uneigentlich)*. In the former, one appropriates time as a project; being temporal is to order one's experience. Human timekeeping is the ordering of experience in terms of our care for past, present, and future. Disowned time objectifies time as a container wherein past and future are not enacted but merely set along side each other as before and after.

Alderman assesses various conceptions of the university according to the adequacy of their concern with human temporality. Thus, the medieval university's concern with tradition (past), with the interpretation, application, and expansion of tradition (present), and with the theoretical elaboration of new ideas (future) provides for Alderman a paradigm of what the university ought to be. Measured against this standard, the author finds Newman's conception of the university to be flawed, as are those modern conceptions of the university that find their guiding principles in either the past (classical), the present (technological-engineering), or the future (theoretical). One example of temporal blindness is evidenced by the demand that the university be relevant, i.e., helpful in forming the present into a perfected future. In this view, the student is *only* a project, *only* a future, thereby falsifying the integral unity of past, present, and future. Alderman recommends that the university be viewed as an institution that cares for all three moments of time in their inherent interrelations. The distance from this ideal measures the degree of fragmentation of aims and results characteristic of any university.

11:2.0//73-2

The Concept of a University, Kenneth R. Minogue, 231 pp. (University of California Press, Berkeley and Los Angeles).

Kenneth Minogue is concerned with clarifying the defining concept—

the essence—of the university. In his search, he focuses on the university as a premier social invention of medieval Europe. The university was a place, set apart from the practical affairs of men and women, in which scholars might pursue a distinctive way of life centered in unimpeded and open-ended inquiry toward rational understanding of man and his universe. The form of social organization was a community. In that community, the individual scholar was free to choose the focus for his distinctive questings for truth. Academic freedom was a necessary condition of unfettered inquiry, an immunity from ordinary law, both secular and ecclesiastical, not a grant of privilege or right from church or state.

While members of the university set themselves in opposition to interference by church (as well as state) in pursuing their way of life, Minogue finds a *religious*, though nonsectarian, passion in the university's devotion to an unending pursuit of academic inquiry. As a "perennialist" in philosophy, he claims that the essential concept of a contemporary university is identical to that of medieval times, whatever accidental changes may have occurred in the intervening centuries.

Minogue sees contemporary universities to be in a state of siege by their surrounding societies. The siege is made plausible by a widespread confusion between journalism and ideology on the one hand, and genuine scholarship on the other. But the chief thrust comes from a doctrine of social adaptation in which society is assumed to be a coherent whole. Universities are seen as a contributory part of this whole, both in their research and instructional activities.

Like Cardinal Newman in the nineteenth century, Minogue recognizes the societal need for instructional programs in the service of practical, vocational, and civic ends. But such instruction, which the author does not regard as inferior but as distinctively different, cannot be a part of a university without compromising its essential character.

11:2.1/69

The Ideal of the University, Robert Paul Wolff, 161 pp. (Beacon Press, Boston).

This searching yet sprightly critique of university education as it has developed in America in the 20th century grew out of the challenges of the 1968 student uprising at Columbia University, where the author was a professor of philosophy. While Wolff's frequent references to widespread student commitment to radical social and educational changes may today seem dated, his criticism of university policy and practice and his well-articulated vision of an ideal university are by no means out of date and are well worth consideration at the present time. The author describes himself as a "self-confessed radical" in political orientation.

Wolff projects four models of the university as ideal types. These are not descriptions of any existing universities, but alternative sets of ideals that find partial exemplification in all or most contemporary institutions of higher education.

The first model envisions the university as "a sanctuary of scholarship." The social organization of such a place is a self-governing community of scholars, joined by apprentice scholars whose studies are guided by the senior professors with whom they work. Wolff has a strong identification with this model, as his own vision of an ideal university makes clear.

The second model envisions the university "as a trainng camp for the professions." Wolff recognizes that the education of professionals has been a function of Western universities since their emergence in medieval times. He has grave misgivings about the downward pressures of accelerating professionalization of the university on undergraduate and even secondary education and its tendency to fragment the common loyalties of faculty members and students to the university. The social organization that fits this model of higher education is an "aristocracy of professional competence."

The third model views the university as "a social service station." He sees the embodiment of this ideal in Clark Kerr's "multiversity." The multiversity becomes increasingly the servant of those who can pay for its services—governments and corporations particularly—and becomes an aggregate of diverse and conflicting schools, departments, centers, and programs. The social organization consistent with this model is "democratic pluralism," in which the integrity of the university tends to be lost.

The fourth model of the university Wolff views as an "anti-model" that describes student activists' version of the university as it now operates. He terms this model an assembly line for producing establishment men and women. As student activists saw it, the university shapes its human products to become docile maintainers of established society and to fill its manpower requirements uncritically. Wolff finds some merit in this critique of contemporary higher education, but finds in it also some dangerous oversimplifications.

Wolff sketches his own ideal university as a community of learning in which faculty members and students commit themselves ". . . to pursue the common goals of truth, rational discourse and the preservation and transmission of learning." They require no external governance and regulate themselves. The author believes that his ideal cannot be fully realized without the radical reorganization of society. He offers proposals for practical utopian reforms in line with his ideal that extend to the grading system, admission requirements, university governance by faculty members and students, and the separation of professional training and credentialing from the university.

11:2.1/66

The University in the National Future, Thomas B. Stroup, ed., 111 pp. (University of Kentucky Press, Lexington).

This book comprises four papers presented at the University of Kentucky during its centennial year (1965), three of them as part of a futuristic symposium on the university in 2000 A.D. Only the essay by Kenneth D. Benne was written by a professional philosopher of education. Of the other authors, Sir Charles Morris is a political theorist and university administrator in England, Henry Steele Commager is an American historian, and Gunnar Myrdal is a Swedish economist. In all four essays, the variously envisioned futures for universities are bolstered by refined arguments and criticism of current trends. This qualifies all as instances of public philosophizing.

Benne's treatment of "The Idea of a University in 1965" accepts the accuracy of Clark Kerr's description of the multiversity—a congeries of diverse, noncommunicating, and often competing schools, departments, and programs. This diversity Benne attributes in part to the coexistence in contemporary universities of three unsynthesized and conflicting historical ideas of an institution of higher learning — the community of scholars, young and old; a place for rigorous specialized research, after the scientific model, and for training competent research specialists; and the land-grant college, an assemblage of intellectual resources, practically oriented, and dedicated to the service of all professions and of learning by all men and women, whatever their age and social status. Benne argues that internal community and a sense of joint purpose need to be restored to the multiversity through sustained and continuing communication and deliberation by faculty members and students across specialist lines, aiming toward a dialectical synthesis of research, teaching, and service functions. He argues that the present organization of the university militates against such a quest for internal community. He proposes a matrix organization for university life and work in which various groups of faculty and students work simultaneously in centers for cross-disciplinary studies, oriented to a contemporary human problem of their choice, and in continuing conferences focused on the advancement of a specialist discipline or profession. The university would become a federation of semiautonomous learning communities.

Sir Charles Morris, in his discussion of "The University and the Modern Age," envisions the university as a clearinghouse of ideas and as a training center for knowledge-based professions. He believes that the trend toward specialized professional training, which has led to the decline of general education, will be reversed as the demand for meaningful and socially oriented specialization increasingly requires crossing the arbitrary lines of academic and professional disciplines, both in research and teaching.

Henry Steele Commager, in his discussion of "The University and the Community of Learning," argues, as Morris does, for the university as a clearinghouse, producer, and disseminator of knowledge of all sorts. The university will find community in its dedication to social improvement.

Gunnar Myrdal, sees the expansion of professional, practical, and research training in "The Future University," He warns that the social and moral implications of advancing knowledge should not be ignored. He argues that universities in technologically developed countries must assume responsibility for helping universities in underdeveloped countries to narrow the gap between the quality of life in underdeveloped and in developed nations.

11:2.1/63

The Uses of the University, Clark Kerr, 140 pp. (Harvard University Press, Cambridge, Mass.).

The inclusion of this book in a bibliography of current works on the philosophy of higher education might be questioned on two grounds. First, its author is not a philosopher. In the foreword he identifies his academic discipline as economics. At the time of the book's publication, he was administrative head of the California State University system. And his expressed intention was to describe, not to criticize or evaluate, the current state and purposes of the American university. Second, the book was first published in 1963. In a period of rapid social and educational change, a work published 17 years ago could hardly be described as current.

An answer to the first objection is that Kerr does more than describe the state and purposes of the American "multiversity" — his own verbal coinage. He justifies and celebrates it. And within the limits of his prevailing optimism about the essential health and future of the multiversity, he criticizes it. His philosophic world view is that of a historical, perhaps an economic, determinist. On this view, philosophical speculations are futile and backward-loking. He notes that Newman's and Flexner's philosophies of higher education had been disproved by the movement of history even at the time of their publication. For a historical determinist, especially for one who believes in inevitable progress as Kerr seems to do, well-conceptualized and accurate description provides an adequate "philosophy."

An answer to the second objection is that Kerr's description of the multiversity, developed and influenced through governmental, corporate, and foundation grants and governed internally by mediation and mutual accomodation of competing and conflicting academic interests, is still adequate today. No other general description published since equals it in penetration, frankness, or eloquence.

Kerr argues that the contemporary American university has become an instrument of national purpose, particularly in three areas of public concern — military defense, scientific and technological progess, and health. The acquiescence by universities in becoming instruments of sometimes inconsistent and conflicting national purposes has been effected by a system of outside grants, mainly for researchers regarded by donors as of strategic importance, but also for the training of specialized personnel to meet strategic manpower requirements of government and industry. Since the grants have favored scientific and technological development, the social sciences and humanities have been relatively neglected. The resulting internal imbalance has led to a fragmentation of conflicting academic interests; hence the "multiversity." It has also reduced the autonomy of the university; outside granting agencies have become, for many persons in the multiversity, the effective alma mater, in Kerr's phrase. It has also led to a marked neglect of undergraduate education.

The yearnings of some faculty members and students for community and collegiality Kerr regards as the remnant of an outmoded "guild mentality." The multiversities have become and will continue to function as indispensable producers in the still-developing "knowledge industry."

2.2 Prospects for Liberal and General Education

11:2/79

Interdisciplinarity and Higher Education, Joseph J. Kockelmans, ed., 372 pp. (Pennsylvania State University, University Park).

Despite the amount of talk about and interest in the interdisciplinary, it is somewhat surprising that there are relatively few studies of the philosophical foundations of interdisciplinary study, particularly its epistemological foundations. This volume is important in that regard, for it contains some very helpful and important philosophical analyses of the concept and practice of the interdisciplinary. The book gains additional significance because its essays help to illuminate not only the philosophical meanings of interdisciplinarity, but also its impact on university teaching and research and on the very future of the university.

The scope of the book is broad, with chapters treating historical issues (Kockelmans, Wolfram W. Swoboda, Hans Flexner), philosophical issues (Kockelmans, Vincent C. Kavaloski), and educational issues (Kavaloski), as well as particular questions associated with science (Rustum Roy), the social sciences (Muzafer Sherif), and personal and institutional problems connected with the interdisciplinary (Robert L. Scott).

The relevance of the articles to current discussions concerning the aims of higher education, the role of the disciplines, specialism and general education, and the uses of knowledge make clear the profound connection between interdisciplinarity and higher education. Of special importance is the connection between the outlook for liberal or humanistic education and the possibilities of the interdisciplinary. Thus, the questions "why the interdisciplinary?" and "why liberal education?" seem to have closely related, though perhaps not identical, answers—ones that appear capable of deepening the meaning of what it is to be a well-educated person.

Not all the essays are unqualified endorsements of interdisciplinary study. Kavaloski argues that interdisciplinary study rests on an "objectivist epistemology," i.e., the view that knowledge is an objective body of information, methods, and concepts. The pedagogy that results from this epistemology is also objectivist: knowledge is an object or objects (interrelated in interdisciplinary study) to be assimilated by the student, who also is an object, i.e., a receptacle for knowledge. Kavaloski questions whether interdisciplinary study can be the basis of fundamental educational reform since it places primary importance on the content of education—the knowledge—instead of on the process—the knowing. He concludes that though interdisciplinary education seeks to go beyond disciplinary education, it "is still partly in thrall to it."

11:2.2/78

Liberal Education and the Modern University, Charles Wegener, 163 pp. (University of Chicago Press, Chicago).

One of the central questions posed by Wegner's book is how the intellectual world takes shape to become part of an individual mind and character. This question is located in the broader context of such issues as: the place of intellectual activity among human goods; the combination of research and democracy (service) in forming the modern university's "functional architecture of the intellectual world"; and the meaning and substance of the "intellectual world." After addressing these issues, Wegener responds to his initial question, and this response is, in effect, a philosophy of higher education that considers such issues as the proper aims, methods, and content of university instruction.

Wegner emphasizes the importance of individual habits of mind among institutional habits. He wishes to rethink the institutionalization of knowing, particularly its consequences for the organization of individual personalities, the activities defined by the institutional structuring of knowledge, and the personal goods and evils promoted through this structuring. Wegener's concludes that the organization of our intellectual institutions may not be well adapted to the development of what he believes is the distinguishing feature of the intellectual process of the liberal arts—encouragement and prizing of a ". . . *habit* of reflection as an integral part of the life of the mind." Not subject matter and its departmental reifications, not techniques and methods or their research reifications, but rather, the "disciplined habits of thoughtful functioning" constitute the liberal arts as well as the intellectual world. Such reflection is occasioned by many contexts and many purposes. However, the central value of a liberal education is not simply its provision of occasions for such reflection, but rather its dedication to the task of stabilizing the attitude or habit of reflection. It is in and through these habits of disciplined thinking that the intellectual world takes shape in the individual mind, not merely as a cognitive acquisition but as the culture of the mind, its ethos.

11:2.2/74

General Education: The Search for a Rationale, Harry S. Broudy, 50 pp. (Phi Delta Kappa Educational Foundation, Bloomington, Ind.).

Harry Broudy notes that cultural pluralism and stress on the development of technical and professional competence in our achievement-oriented and technologically developed society have destroyed the traditional rationale for general studies in secondary and collegiate education. This rationale rested on social class assumptions. Since general education was valued positively in the education of children of the elite, it was valued also by others who sought advancement in social status for their children.

With the dissolution of this extra-educational justification for general education, a rationale based on the life-uses of schooling is required. Broudy posits that the search for life-uses of schooling must extend to vocation, citizenship, and the individual pursuit of happiness. He presents a four-fold typology of the uses of schooling. The first use is *replicative*. This consists in subsequent recall of school learnings much as they were first learned. The second use is *associative*. In this use, a store of images and ideas from the subconscious cellars of memory are evoked by a situation to enrich our experience of it. The third use Broudy terms *applicative*. This requires the use of previous learnings in making decisions about practical problems. The fourth use is *interpretive*. This involves the use of previous learnings better to understand life situations as they are confronted.

Broudy argues that it is in the associative and interpretive uses of schooling that the justification of general education—in the sciences, the humanities, and the arts—lies. Broudy's rationale for general education extends to associative and interpretive uses of schooling in vocational life. the life of citizenship, and in personal self-cultivation. But it is in the service of personal self-cultivation that general education becomes an important moral enterprise. "It may well be that in the tightly organized, technologically interdependent web we live in this (general education) may be the last avenue of escape into individuality and freedom."

11/2.2/73

Content and Context: Essays on College Education, Carl Keysen, ed., 565 pp. (McGraw-Hill Book Co., New York).

Of the many collections of essays about college education published in the sixties and seventies, this volume stands out as one of the best. The editor states in the introduction that the work was originally conceived as an examination of what a college student does and should learn in the name of a liberal education. This conception was later expanded to include not only the content of a liberal education but its context as well, i.e., the institutional, social, and intellectual forces affecting and shaping the undergraduate curriculum. As is the case with many other publications that are not specifically or narrowly philosphical in intention and execution, the essays in this volume raise questions that often merge into philosophical inquiries about the aims, methods, and content of liberal education.

The volume includes essays that treat the history of the American undergraduate curriculum (Laurence Veysey), the humanities (Roger Shattuck), the social sciences (Neil J. Smelser), science (Paul Doty and Dorothy Zinberg), and the arts in higher education (James S. Ackerman). Others are concerned with the professions (Everett Hughes), information technologies (Anthony G. Oettinger and Nikki Zapol), and society's demands on the university (James S. Coleman).

The essays by Norman Birnbaum and David Hawkins are concerned with certain philosophical issues associated with the university. In "Students, Professors and Philosopher Kings," Birnbaum considers the social uses and abuses of university-generated knowledge and ideas. Although his chapter is "not a treatise on the theory of knowledge," it does consider questions that "cannot be left on philosophers alone" (a useful reminder that professional philosophers do not own philosophical discourse). Following his discussion of such topics as the partisanship of the university, the differences between the liberal and the technocratic university, and the idea of an educated public, Birnbaum concludes that the university must raise society's consciousness of itself. This should be done not by abandoning its commitment to "high culture" in favor of a mass culture, a popular culture, or a counter-culture, but by benefiting from this culture's commitment to knowledge and a moral conception of its uses.

In his essay, "Liberal Education: A Modest Polemic," David Hawkins presents the thesis that the missing component in all levels of formal education is an interrelating of practical work and academic study. Both drawing on and criticizing the philosophy of John Dewey, Hawkins argues that only in the "working economy of the lives of young people" can the content of an education come to a humanly significant fulfillment. This is not a new idea. Hawkins draws out some of its underlying philosophical presuppositions, most importantly, the relationship between knowledge and action. He proposes not a "vocational education," but rather a liberal education more generally rooted in a "practical-perceptual matrix," one capable of recognizing when it is and is not desirable to link the liberal and the practical. Epistemologically, knowledge and practice "...*cannot* be fused into a seamless fabric," but, pedagogically, students must be encouraged to move back and forth between the two realms.

11:2.2/71

Predicament of the University, Henry David Aiken, 404 pp. (Indiana University Press, Bloomington, Ind.).

David Aiken's work is one of the most distinctive, important, and radical philosophical discussions of higher education published in the seventies. At least one reason for its distinctiveness is its first section, "On Going to Brandeis." In it, Aiken asks himself and the reader "... was there any point in my going to Brandeis?" The answer is Part I of the book, and in it we come to see why "... the answer is not a purely personal one." Yet, there is much here that is personal—his unhappiness with Harvard's failure to extend general education into the graduate and professional schools; his despair with Harvard's "prevailing and spiritually desiccating rationalism"; his delight with the emphasis on the "creative arts" at Brandeis; and his pleasure with that institution's ability to bring into meaningful relation a sense of the past and an awareness of contemporary life. "Going to Brandeis" is thus a metaphor for all of higher education, a metaphor of its search for a more generous and liberating philosophical foundation. For this reason, Aiken says he is still "going to Brandeis."

The book's importance derives from the superior quality of philosophical thinking that ranges over issues and problems of higher education. In the second part of the book, "The University in Crisis: Some Commentaries," Aiken carefully examines the views of such people as Clark Kerr *(The Uses of the University),* James A. Perkins *(The University in Transition),* Jencks and Riesman *(The Academic Revolution),* and Sideny Hook *(Academic Freedom and Academic Anarchy).* Particularly penetrating is Aiken's analysis of Daniel Bell's *The Reforming of General Education: The Columbia College Experience in Its National Setting* (New York: Columbia University Press, 1966). Aiken sharply criticizes Bell's emphasis on what the latter calls the "centrality of method," i.e., methods of inquiry. In Aiken's view, Bell's fascination with methodologies prohibits him from seeing the deeper meaning of integration or interdisciplinary study. The value of such study lies not in connections between the concepts and methods of disciplines, but rather in the "...wisdom that may be in the study of such connections." The student wants to know what such connections "portend as forms of life."

The radical nature of the book derives from Aiken's insistent attack on what he calls the "ideology of rationalism," the view that only those forms of intelligence that culminate in the achievements of the formal and natural sciences are true exemplars of reason. This ideology pervades and colors many discussions of the purposes of higher education. Bell's emphasis on contexts of inquiry rather than experienced realms of meaning and being is an outstanding example. The ideology of rationalism, with its talk about "strategies of inquiry" and "methods of knowledge," contributes to what Aiken calls the "religion of search" that pervades the university not only as a practice but also as an attitude toward reason and the life of the mind. Aiken contends that the rationalism of higher education narrows the proper range of knowledge and reason, blinding us to the possibility that there may be more to the "life of the mind than the idea of knowledge adequately comprehends."

3.0 ORGANIZATION AND GOVERNANCE OF HIGHER EDUCATION

3.1 The Educational System and Its Control

11:3.1/80

Predicting the Behavior of the Educational System, Thomas F. Green, 200 pp. (Syracuse University Press, Syracuse, N.Y.).

This highly original work does not deal descriptively with the statics of legally or traditionally prescribed structures of educational organization. Rather its analysis is dynamic, explicating the implicit rules that govern the behavior of the educational system. The analysis seeks to provide a formal basis for predicting the effects of interventions into the system and, as such, it is designed to inform and guide processes of educational policymaking.

The author does not begin with a definition of the "educational system." The definition is the outcome rather than the beginning of philosophical research. He begins with the referents of the term in common discourse: a set of schools and colleges, related by a medium of exchange, and arranged by some principles of sequence.

His method of investigation is that of practical rationality, in which the relation between the premises of a practical argument and the conclusion (an action) that follows from it is one of inference rather than causality. He makes clear that his aim is to develop a theory of the educational system rather than a theory of education, and he claims that his treatment is devoid of educational or social criticism of the existing educational system.

The primary elements of the educational system have already been noted. Green identifies the derivative properties of the system as size, control, and distribution. He analyzes eight modes of expansion (and presumably of contraction) and discusses their interrelationships. He identifies and assays four sets of interests that are related to control of the system—state interest, parental interests, societal interests, and interests of incumbents in the system—and he discusses the interrelationships between educational goals and interests. An educational system is both distributive and productive. It accomplishes a distribution of resources within the system, a distribution of noneducational benefits resulting from the system, and some presumed distribution of educationally relevant attributes in the population served by the system.

Proceeding from his analysis of primary elements and derivative properties of the system, Green moves to a treatment of hierarchical principles as they operate within the system, to a formulation of systematic rules of growth, to the dialectic between the two principles of "best" and "equal," and to arguments concerning public and private benefits from the operation of educational systems.

It is impossible to summarize briefly the rich, ingenious, and closely reasoned arguments that each of these extensions of the analysis of the distinctive dynamics of the educational system incorporates. But it is fair to state that this work provides a previously unavailable formal basis for realistic formulations of policies for the guidance and alteration of any educational system.

See: 26:4.1/78 **Sharing Authority Effectively,** Kenneth P. Mortimer and T.R. McConnell.

Mortimer and McConnell recognize that events during the 1970's precipitated a crisis of authority in institutions of higher education throughout the nation. The roots of this crisis were no doubt present in the 1960's and earlier. But its depth was concealed by the prosperity that marked the financing of higher education during the 1950's and 1960's. This prosperity was due to expanding enrollments and the relatively ready availability of funds through governmental and industrial grants, contracts, and subventions. Mortimer and McConnell's attempt to clarify the crisis is evident in conflicting claims by various constituent populations (faculty, students, nonacademic employees, administrators, and trustees) within the institution for a different degree of influence in decisionmaking than they now exercise. Externally, the crisis manifests itself in more peremptory interventions by governments in university affairs, which reduce the policymaking autonomy of the institution.

The authors' effort to clarify authority relations centers on two main themes. The first has to do with appropriate distribution of authority and involves the analysis of such questions as: How adequate are existing conceptions and practices of shared authority for effective academic governance? How reconcilable are the claims of formal bureaucratic authority (authority of rules and position), emphasized widely by administrators and trustees, and those of professional, functional authority (authority of expertise), held widely by faculty members? What do alternative decisionmaking structures, such as faculty senates and faculty unions, imply for sharing in academic governance?

The second major theme concerns the legitimacy of various claims for sharing in institutional governance. Which groups and individuals have a legitimate claim for participation in academic decisions? How far should academic governance rely on systems of executive discretion, and how far on codified rules and procedures, for maintaining legitimacy? What degree of openness is desirable and necessary for legitimate decisionmaking? How reconcilable are government interventions into institutional operation with a desirable degree of institutional autonomy?

The authors offer no general answers to the questions raised and analyzed, though they do offer some conditional recommendations. This lack of general answers is based in part on the authors' belief that effective solutions should be "situation specific," taking into account the distinctive traditions, mission, and contexts of particular institutions.

11:3.1/70

"Authority in Education," Kenneth D. Benne, *Harvard Educational Review*, vol. 40, no. 3, pp. 385-410.

In this article, Benne seeks to clarify the meaning of authority in education and to recommended changes in educational authority relationships required by the contradictions between the accelerating social interdependence and growing fragmentation of conflicting group interests that characterize contemporary society. He finds mistaken notions in much commonsense thinking about authority—a confusion of authority with power and a belief that authority is necessarily conservative rather than "progressive" in its effects. Social and political sciences provide little or no basis for correcting mistaken popular beliefs. And moral philosophers, in their prevalent individualistic orientation, have tended to neglect authority, opposing it both to rationality and to freedom.

Benne's own conception of authority is that of a triadic relationship between subjects who cannot meet their needs without outside help, bearers who claim the capacity to help subjects meet their needs and who receive willing obedience from subjects in return, and a field of conduct, delimited by the intersection of subjects' needs and bearers' competences, in which any given authority operates. He identifies three types of authority relationships—expert authority, the authority of rules, and anthropogogical authority. Benne uses the term "anthropogogical" rather than "pedagogical" to emphasize that, in our changing society, education and reeducation are required by persons of all ages, not just by children.

The bearer of anthropogogical authority is a community in which subjects are seeking to develop fuller and more mature membership. Teachers, counselors, and administrators as proximate bearers of educational authority are vicars of this wider human community.

The decline of tradition-directed community both inside and outside educational institutions signifies the eclipse of traditional authorities and requires the deliberate building and rebuilding of learning communities as a necessary condition both of authority and of freedom in contemporary educational relationships. The restoration of community requires a future (instead of a past) orientation in education decisionmaking and continuing negotiation and renegotiation of mutually acceptable authority relations across various lines of conflicting group interests, including the conflicting interests of younger and older persons.

3.2 Academic Freedom: The Rights of Teachers and Students

11:3.2/70

Academic Freedom and Academic Anarchy, Sidney Hook, 269 pp. (Cowles Book Co., New York).

Sidney Hook was appalled by the threats of student activists in the 1960's to the maintenance, even the survival, of universities with a commitment to academic freedom. His method and style are polemical, recounting the actions and refuting the arguments of student leaders like Tom Hayden and Mark Rudd. His polemic extends to faculty members like Herbert Marcuse and Carl Schorske, who condoned the methods of student activists, including their use of violence. And he includes in his criticisms what he regards as appeasement of protesting students by college and university administrators like James Perkins and Harris Wofford.

These voices may be seen by many readers as superseded in the subsidence of student activism in American colleges and universities in the 1970's. But methods of confrontation and the presentation of "unnegotiable demands" to institutions of higher education to adopt politically partisan commitments are not dead and may rise to a crescendo again, though future demands may come from both political reactionaries and from radicals of the left. So Hook's polemical analyses and critiques, although focused on a historical case, are worth pondering today.

Hook begins his analysis of academic freedom with the slogans with which it was advanced and justified in Germany in the nineteenth century—*lehrfreiheit* (freedom to teach) and *lernfreiheit* (freedom to learn). He notes that freedom to teach made headway in American colleges and universities through the late 19th century and the first half of the 20th century. Freedom to learn was not taken seriously in American until the 1960's.

For Hook, freedom to teach is the freedom of professionally qualified persons to inquire, discover, publish, and instruct in the truth as they see it in the field of their competence. It is subject to no control except the control of the rational methods by which truths are sought and established in their disciplines. Hook makes clear that freedom to teach is not a human right, possessed by all human persons, but an earned right. He also emphasizes that academic freedom includes the right to heresy, as well as the right to state and defend traditional views.

Freedom to learn Hook does regard as a human rather than an earned right. In university circles, Hook translates student rights into two classes—social and educational. Students should control their own social life through their own organizations, though specific student actions in this area should be subject to veto by the faculty, who are for him the guardians of the educational mission of the university. Students should posses the right to dissent, though the permissible limits of dissent should be defined by the faculty. And although students should be consulted in educational matters, their rights do not extend to decisions on major issues of educational policy and practice.

11:3.2/69

Dimensions of Academic Freedom, Walter Metzger, Sanford Kadish, Arthur De Bardelben and Edward Bloustein, 121 pp. (University of Illinois Press, Urbana).

Walter Metzger, in "Academic Freedom in Delocalized Academic Institutions," reaffirms the essential value of academic freedom to the modern university. But he is concerned with identifying changes in the forces and conditions that place academic freedom in peril now, as against the threats evident in 1915 when the classic "General Report on Academic Freedom and Tenure" was formulated for the newly founded American Association of University Professors. Changes in imperiling conditions and forces require changes in norms and strategies designed to offset the threats.

In the classic formulation, the threats were seen as coming from within the "localized" university—dissident professors were the victims, trustees and administrators were the culprits, loss of employment was the wound. While vigilance toward such threats is still needed, universities have now been delocalized. The college or university has lost much of its local independence and become a public utility. Control of admissions, of student disciplines, of what is to be researched, of what specialists are to be trained, and, in some cases, of what is to be published and what kept secret has passed outside the university and is now lodged in government. The "delocalized" university needs strategic defenses against threats to its academic integrity. Metzger offers no formula for protecting autonomy for the university, but he does recommend widely shared power in the university to strengthen internal defenses and universities, abandonment of political neutrality on issues where institutional integrity is at stake.

Sanford Kadish considers "The Strike and the Professoriat." He argues that the professoriat has become a service profession and, on this basis, the idea of a community of professional scholars still has meaning. He believes that five important values are imperiled by the use of the economically motivated strike: the service ideal; the moral basis of professional claims; the commitment to shared and cooperative decisionmaking; the commitment to reason; and the pursuit of distinction. Yet he recognizes extreme cases in which a strike by the professoriat is the lesser of two evils. These cases include strikes motivated by economics and "academic interest" and "politics."

Arthur De Bardeleben, in analyzing "The University's External Constituency," argues that the principal external attacks on the freedom of professors to teach, research, and publish are made in the name of economic conformity, religious orthodoxy and conventional morality. He discusses bulwarks against such attacks and finds the principal defense in unremitting efforts by boards of trustees and faculties to educate the public concerning the indispensable value of academic freedom.

Edward Bloustein, in "The New Student and His Role in American Colleges," argues that a fundamental erosion of internal authority of colleges and universities has been taking place over a considerable time. In the classical American college, the student's relationship to the college was a contractual one, the contract being, in legal terms, of a third-party beneficiary sort. The college stood in loco parentis to the student. Erosion of this passive role for students has been effected by the expansion and transformation of the body of knowledge the university transmits, the development of the social functions higher education is called upon to perform, and the emergence of a new student. Bloustein argues that the fundamental issues at stake are who shall exercise ultimate control over the academic institution and whose goals and values the university and college shall serve. Students, he argues, must participate responsibly in the settlement of both sets of issues.

4.0 EDUCATIONAL POLICY

11:4.0/78

Ethics and Educational Policy, Kenneth A. Strike and Karan Egan, eds. 225 pp. (Routledge and Kegan Paul, Boston London, and Henley).

This book consists of 11 essays that philosophically treat the conceptual and normative aspects of topics related to educational policy. The essays are grouped in five parts that indicate, in a general way, the areas of policy into which the authors venture: (1) liberality and the university; (2) students' rights; (3) autonomy, freedom, and schooling; (4) equality and pluralism; and (5) technology and work.

In the first part, R.S. Peters, in an essay on "Ambiguities in Liberal Education and the Problem of Its Content," distinguishes three quite different meanings to which the term "liberal education" has been attached—knowledge for its own sake, general or rounded education, and the education of free men and women—and he explores some of the ambiguities inherent in each usage. Kenneth A. Strike, in his discussion of "Liberality, Neutrality and the Modern University," focuses on the possibility of neutrality in university education. He finds impartial neutrality possible to maintain in the university's research and teaching functions but impossible to maintain in its social service functions. In an essay on "Student Academic Freedom and the Changing Student/University Relationships," Romulo F. Magsino notes that the application of academic freedom to students is quite new to the American scene, and its meaning currently is far far from clear. He distinguishes two bases for justifying students' rights—one legal, an extension of the citizen's rights of students to their lives in and around the university, and the other educational, stemming from the learning mission of the university as an educational institution. His own recommendation is inconclusive but illuminating with respect to criteria to be applied in defining academic freedom for students.

In the second part, Francis Schrag, in discussing "From Childhood to Adulthood: Assigning Rights and Responsibilities," relates the question of students' rights to the concept of "personal maturity." He proposes creation of a new legal status for young people between minority and maturity. Leonard Krimerman, in discussing "Compulsory Education," criticizes compulsory education as immoral in violating the rights to personhood of children and young people. He defends voluntary education as both morally right and practically feasible.

In the third part, Brian Crittenden, in "Autonomy As an Aim of Education," criticizes "individual autonomy," often regarded "...as a fundamental value in educational theory and practice." He discusses the relationship between autonomy as frequently defined and an "anarchistic epistemology," and finds it self-defeating as an aim of liberal education. David Nyberg, in "Ambiguity and Constraint in the 'Freedom of Free Schools,'" exposes difficulties in the idea of "freedom" in failures to specify the constraints to which it is opposed. His concludes that "... there is no general issue of freedom but issues of particular freedoms."

In the fourth part, Richard Pratte, "Cultural Diversity and Education," evaluates allegations of the emergance of a "new ethnicity" in America—an ethnicity that has been enlarged to include racial and sexual differences—and he evaluates its meanings for education policy. Robert Ennis seeks to give clearer meaning to the concept of "Equality of Educational Opportunity."

And in the fifth part, Harry Broudy, in discussing "Technology and Educational Values," assays the possibilities of humanistic education in our technologically developed society. He finds such education possible if the value of self-cultivation is not lost among the blandishments of a technology that builds rationality into a system of mass production but does not require a high order of rationality in the consumption of its fruits. Thomas Green, in treating "Career Education and the Pathologies of Work," finds that the movement of career education is a promising one, as long as important distinctions between "work" and "labor" and between "job" and "career" are understood and respected. But he finds that redemption of the life of work will require the restructuring of employing institutions, as well as career education in schools and colleges.

5.0 EXPERIENTIAL LEARNING

11:5.0/80

"Reconstructive Query: Dewey, Buchler and Merleau-Ponty As Guides to an Expistemology of Experiential Learning," Richard Lee Hopkins, 271 pp. (Ed.D. dissertation, Boston University).

Richard Hopkins finds that, although the "experiential learning movement" is accelerating in American higher education, it is not unified by any explicit theory of what is known through experience and how the knowing was attained by the learners. Whatever unity the movement has does not derive as much from a considered philosophy of experiential learning as from a political philosophy, that would widen access to the extra-educational benefits of higher education and from a set of administrative practices for credentializing nonacademic learning for academic use. The author's purpose is to develop such a philosophy and to note some of its pedagogical implications.

Hopkins draws heavily on the treatments of experience by Dewey, Buchler, and Merleau-Ponty in developing his own theory of how learning happens. His method of philosophical analysis is phenomenological. His theory envisions a hypothetical "learner-in-the-world" who moves a cycle of "reconstructive query." The cycle has four stages: entry-and-passage; development and movement; evolution; and production. The learner moves freely yet methodically, using experience as a means of cumulative access to further experience. The production stage includes the expressive communication of products of judgment and their articulation with sedimented past experiences. Each closure is not an ending but the opening of a new field along the stream of experience. The ultimate goal of experiential learning is to assist learners to learn the habit of learning autonomously. The proximate goal is meaning, not fixed or predetermined truth. Experiential learning, as Hopkins envisions it, is a way of life, "audacious, socially marginal, risky ... but nonetheless available for those who would live in responsible freedom." Mentors, teachers, or groups may help learners to negotiate the stages of learning, supporting learners in their doubts, preventing premature closures, and sustaining them in the self-understanding that is an important product of experiential learning.

See: 34:5.0/76 **Experiential Learning: Rationale, Characteristics, and Assessment,** Morris T. Keeton and Associates.

This book is a "distillation" of papers commissioned by the Cooperative Assessment of Experiential Learning (CAEL) Five of the 13 papers may be seen as contributions to a philosophy of experiential learning as part of higher education. As Morris Keeton notes in his preface, "This book is a set of independent interpretations rather than a prescriptive credo. Each contributor has written in his or her own style and in a fashion that seemed appropriate to the topic." What unites the five authors in their somewhat diverse approaches is a conviction that traditional modes of learning tend to leave a wide gap between what students typically learn and the learnings required by society. Most of the authors also hold two other convictions: that "experiential learning," however defined, can help to narrow this gap; and that students who come to college after a period of work and civic experience outside school should be credited by colleges for their nonscholastic learnings.

Keeton, in his "Credentials for a Learning Society," attempts a futuristic look at the kinds of "educational passports" individuals will need to facilitate access to freely chosen educational opportunities, whatever their age or social status. He defines "experiential learning" as "learning as it occurs outside classrooms." He is convinced that classrooms cannot bear the burden of providing all the experiences essential to the most efficient or the highest quality education alone and that present policies of educational credentialing cannot serve the whole range of needs essential to our interdependent and credentialing society.

Alan Gartner, "Credentialing the Disenfranchised," defends those who are promoting the expansion of experiential learning with the conviction that it provides "a mode of learning more amenable to the realities of the lives of those who have been excluded from the traditional mode." He argues against assessment procedures that seek in experiential learning "functional equivalents" to learning achieved by traditional modes of instruction. This search Gartner says, assumes that traditional modes of learning are superior to learning achieved through experience. He finds in the expansion and acceptance of the legitimacy of experiential learning an antidote to the elitism that traditionally has characterized higher education.

Melvin Tumin, in "Valid and Invalid Rationales," accepts the infusion of more experiential learning into processes of education as important for improved education. His contrast between nonexperiential and experiential learnings is between more or less abstract, and more or less linguistic, sets of symbols employed in teaching-learning transactions. He argues that the expectation that the use of more experiential learning will narrow the opportunity gap between advantaged and disadvantaged persons and groups in our society is a dubious one.

James Coleman, in "Differences Between Experiential and Classroom Learning," distinguishes between "information assimilation" (the typical classroom mode of instruction, which moves from generalizations communicated by a symbolic medium to application and action) and "experiential learning" (which moves from self-chosen actions through reflection to generalization). He argues that each has its place in higher education, and he attempts an analysis of the strengths and weaknesses of each.

Arthur Chickering in "Developmental Change As a Major Outcome" builds a case for an expansion of experiential learning in higher education using an analysis of current and recent research and theory concerning adult development and cognitive styles of learning. In brief, he argues that traditional college instruction builds on and reenforces personal immaturity and that experiential learning can be used to foster maturity (in judgment and feeling, as well as in cognition) in the personal development of students.

6.0 LIFELONG LEARNING AND CONTINUING EDUCATION

11:6.0/80

Philosophical Foundations of Adult Education, John L. Elias and Sharan Merriam, 212 pp. (Krieger Publishing Co., Huntington, N.Y.).

Elias and Merriam have written the first book-length account and analysis of the wide range of rationales for continuing education currently advocated and exemplified in the United States. They classify the work of those who have dealt "philosophically" with continuing education in six categories.

The first category is *liberal* adult education. It rests on rationalistic assumptions and stresses the development of intellectual capacities and powers. The roots of this philosophy are in Plato, Aristotle, and the medieval schoolmen. Contemporary exponents are Mortimer Adler, Robert Hutchins, Jacques Maritain, and Mark VanDoren.

The second category is *progressive* adult education, which is committed to the development of social intelligence and the enhancement of intelligent human control over contemporary life conditions and events. The progenitors of this position are identified as William James, John Dewey, and William H. Kilpatrick. Contemporary theorizings by Benne, Bergevin. Blakely, and Lindeman are placed in this category.

Behaviorist adult education stems from the thought of psychologists who interpret learning as environmental conditioning—E.L. Thorndike, J. B. Watson, and B.F. Skinner, for example. Contemporary programs in continuing education that employ behavior modification, management by objectives, and programmed learning are classified as behaviorist.

The viewpoint that animates *humanistic* adult education draws on existential philosophy and humanistic psychology. Its emphasis is on individual freedom and autonomy, and its favored method is self-directed learning. Philosophical forebears of this viewpoint are Heidegger, Marcel, and Buber, and its psychological assumptions originate in the work of Maslow, May, Rogers, and Fromm. Knowles and Tough are classified as humanistic adult educators.

The authors' fifth category is *radical* adult education, the world view of which stems from left-wing Freudian thought and from the intellectual traditions of Marxism and anarchism. It emphasizes the development of political consciousness of contemporary culture to facilitate radical social change. The authors include the work of George Counts, Theodore Brameld, Jonathan Kozol, Paul Goodman, Ivan Illich, and Paolo Freire in this category.

The sixth category is the *analytic philosophy* of adult education. Its roots are in the post-Wittgenstein British philosophy of ordinary language analysis, as well as in scientific positivism. The authors identify Israel Sheffler, Thomas Green, and R.S. Peters as major exponents of analytic philosophy of education, and Lawson and Patterson as its major contemporary advocates. The prime intellectual virtue for analytic philosophers is conceptual clarity.

The classification system developed by Elias and Merriam is open to criticism. And probably some contemporary theorists of continuing education will object to the category to which they are assigned by the authors. But there is value to bringing a generally clear account of various rationales that now guide programming and practice in continuing education into the scope of a single volume.

See: 34:1.0/73-2 **Pattern for Lifelong Learning,** Theodore M. Hesburgh, Paul A. Miller, and Clifton R. Wharton, Jr.

Although this book shows the presidents of three universities as its authors, its content grew out of the deliberations of more than 50 educators, students, and lay leaders from various public and private institutions, working on a variety of committees and task forces. The book was prepared on the assumption that the United States must become a learning society, that lifelong learning must come to characterize the lives of all citizens of tomorrow.

The book offers a critique of three attitudes toward education that are deeply imbedded in the thinking of many, educators and lay persons: "young people need formal education while adults do not"; "education is the same as schooling"; and "the business of educators is formal schooling and they should not be concerned with education that goes on elsewhere." The persistence of these attitudes has led to a hodgepodge of continuing education programs under the sponsorship of business, labor, churches, the military, correspondence and proprietary schools, and the mass media, not to mention the miscellany of continuing education offerings in universities, colleges, community colleges, and public school systems. These efforts, which are responses to inescapable and persistent needs in a changing society, tend to remain outside the core of formal education in the academic world.

This book recommends a conciliation and articulation between the conventional core of academic education and continuing education in its various forms and guises. The authors recognize that continuing education in a learning society will continue under the aegis of various institutions and agencies. They argue that institutions of higher education will and should have an important part to play in efforts to make lifelong learning a reality for all citizens. They attempt to trace some of the effects on the academic world that will follow from its collaboration in a learning society, as such a society assumes a more planful shape. The effects will be internal—on the content and emphasis of the college curriculum, on the aims and methods of instruction, on the comparative distribution of experiential learning and didactic instruction, and on the organization and management of institutions of higher education. The effects will also be external—joint educational planning between colleges and universities and other institutions with educational programs, the reduction of credentialism in university and college programs, and the development of novel interuniversity consortia of various sorts. The authors do not attempt to settle these envisioned problems but rather to raise them into consciousness and clarify them for continuing public-academic deliberation and planning.

12

Policy and General Reference

Kent Halstead

This chapter centers on issues and policy matters in higher education. This is a crowded field: education is so important to so many people that nearly every educational endeavor is challenged by multiple interests. Also, education is complex, involving a scope and depth of activities and functions of exceptional dimensions.

Emanating from issues and debate, eventually, is policy. Policy describes the intent and selected course of action and guides day-to-day activities. Policy may constitute an operating principle. It always indicates objectives. In higher education, policy must accurately and consistently reflect the intent of colleges and universities in fulfilling their expressed responsibilities for public instruction, research, and service.

To a large extent, issues and policy are interwoven in all the works cited in this bibliography. This general section focuses on the broad aspects of issue study and policy development, citing independent works that deal comprehensively with higher education issue analysis and policy formulation. This section also includes futuristic studies and informative and statistical reference works. All of the materials are general works—composite volumes that deal with issues, policy, or reference information. More narrowly focused works, concentrating study in a single policy area, are located under their respective topics.

Issues and Policy Guidance. The works in this section are largely those of commissions and task forces established to identify and describe priority educational problems, discuss the issues and alternatives, and make suggestions and recommendations. In a few instances, conference proceedings and collected writings share this global mission. In most general terms, the continuing problems in higher education include the clarification of purpose, preservation and enhancement of quality and diversity, advancement of social justice, enhancement of constructive change, achievement of more effective governance, and assurance of resources and their effective use. The works cited represent the best examples of issue and policy studies among many. Volumes chosen often contain supporting data and analyses; those rejected appear more editorial than scholarly in approach.

Comprehensive Handbooks. Handbooks, whether prepared by a single author or a number of contributors, are compact manuals of facts and instruction that serve as comprehensive references to be kept close at hand for ready, consistent use. They represent a distillate of the best in current practice and proven procedure. Their synthesis and summary of massive amounts of information save the reader much time. Unlike the science and engineering fields, where handbooks abound, there are few handbooks in higher education. Those available deal mostly with planning methodology and practice at the institutional level and are included under topic 31, Institutional Planning, Studies, and Analyses. For this chapter only a single volume was found to deal comprehensively with statewide planning, and no comprehensive handbook was identified for the Federal level.

Change, Trends, and Forecasts. Recognition of current trends and perceptive insight into the future are necessary ingredients of policy formulation and planning. Yet too often we are guided by past and immediate conditions and successes, giving inadequate recognition to the changes taking place and their likely consequences. The few studies exploring the future of higher education (only five are cited here) deal as much with recommendations and intentions as with prophecy and projections. Much more work needs to be done on extrapolating trends, anticipating change, and speculating on new forces. The studies cited are limited in this regard, bordering more on short-term anticipation than futuristic voyagering.

Reference. This subtopic includes general references of universal value to the higher education community. As reference works, the entries are comprehensive in scope, condensed in treatment, and arranged to facilitate ready access to information. Included are statistical compilations, projections, bibliographies, and directories.

Agencies and organizations that provide data and information services also are listed within this sub-topic.

TOPIC ORGANIZATION

12: Policy and General Reference
- **1.0** Issues and Policy Guidance
  - **1.1** General
  - **1.2** State Role
  - **1.3** Federal Role
- **2.0** Comprehensive Handbooks
- **3.0** Change, Trends, and Forecasts
- **4.0** Reference
  - **4.1** Statistics and Information
  - **4.2** Bibliography
  - **4.3** Directory
  - **4.4** Data and Information Sources and Services

1.0 ISSUES AND POLICY GUIDANCE

1.1 General

See also Topic 9: Institutional Role and Mission and Topic 11: Philosophy for related policy and issue-type studies.

12:1.1/81-1

The Carnegie Council on Policy Studies in Higher Education: A Summary of Reports and Recommendations, Carnegie Council on Policy Studies, 500 pp. (Jossey-Bass, San Francisco).

The Carnegie Council has issued findings and recommendation on every major issue facing colleges today, including: the future of higher education; survival without growth; costs and benefits of higher education; effective management and leadership; improving the curriculum; preserving quality; affirmative action for women and minorities; financial aid; fair practices; and student development and career options. The Council's work constitutes the single most extensive and authoritative source of facts, data, ideas, analyses, projections, proposals, and suggestions available today for the improvement and well-being of higher education.

Most college chief executives, administrators, and faculty members are generally familiar with the Council's work and use its reports as reference in resolving issues and deciding on courses of action. However the Council's findings and recommendations are contained in over 50 separate publications, and few people have the time or resources to study more than a handful of them. This book responds to that problem by providing a one-volume summary of all the Council's publications, including the 16 major books sponsored by the Council and the 28 special studies that contain valuable facts and findings but have had only limited dissemination.

In this four-part book, each Carnegie Council publication is digested in sufficient detail to allow readers to grasp the full scope of its contents, as well as the specific findings and recommendations. In addition, these digests provide the main facts, data, projections, and other information reported in each study. In Part One, Clark Kerr recounts the concerns, goals, approaches, expectations, and results of the Carnegie studies. He focuses especially on the trends and forces in higher education that the Council over- and underestimated. Part One also provides a classification of the publications according to major areas of concern and offers excerpts from outsiders' evaluations of their effectiveness and contributions. Parts Two and Three contain digests of all Carnegie Council's publications. Part Four provides supplementary information about the Carnegie members, staff, meetings, and publications.

In an editorial for *Change*, George Bonham wrote that the Carnegie publications "represent an accumulation of knowledge and projections about the American academy that can only be termed a national treasure. Few other private efforts have applied such intelligence and social thought to a single facet of American life." This volume of findings and recommendations does justice to this high praise by establishing a single summary of the Council's work to serve both as a convenient reference and a contemporary overview and perspective on nearly all issues currently facing American colleges.

12:1.1/81-2

On Higher Education, David Riesman, 421 pp. (Jossey-Bass, San Francisco).

In *On Higher Education*, David Riesman, emeritus professor of social sciences at Harvard, examines the changes that have affected and afflicted higher education since 1968, when he and Christoper Jencks published *The Academic Revolution*.

In the earlier book, the authors discussed how the values of research-oriented faculty members, organized in academic departments, came to dominate higher education and, in their view, distort the mission of many undergraduate programs. They described the "professionalization of teaching" as the takeover of the universities by Ph.D.'s "who, despite conspicuous exceptions, mostly have quite similar ideas ... and now regard themselves almost as independent professionals like doctors or lawyers, responsible primarily to themselves and their colleagues rather than their employers, and committed to the advancement of knowledge rather than of any particular institution." The authors believed that professors were largely unconcerned with goals or ends except for the goal of finding a job in some bureaucratic structure regardless of its ends. With an almost total concern with methods rather than with meaning or values, these faculty members increasingly sought to spend their lives chatting with students who elected their courses simply because they were already interested in the subject, without much concern for its relevance to human life, their own growth and development, or the social problems of the day.

In this new book written more than a decade later, Riesman states that the "academic revolution" has collapsed and an era of "student hegemony" has set in. In his introduction, Riesman describes some of the possible results of the growth of student "consumerism" and warns of some negative consequences—not only for institutions, but also for students and faculty members—of an era in which "students turn from being supplicants for admission to courted customers." He foresees "the likelihood, as institutions compete frantically with each other for body counts, that faculty members and administrators will hesitate to make demands on students in the form of rigorous academic requirements for fear of losing....full-time-equivalent students." He suggests that faculty morale will turn sharply downward "when market forces dictate changes not only in whole curricula but also in modes of instruction." At best, he expects "hazards to the future of scholarship as many of today's able students seek the apparent safety of the professions of law, medicine, or management, rather than the risks of a chancy academic career." At worst, he envisages a "Hobbes' war of all against all, as faculty members compete to capture the student market on which their own reputation or their department's opportunities depend."

In the first three chapters, Riesman puts today's educational trends and conditions in context. As recently as the late 1960's, faculty were scarce and in demand, students were grateful for admission, and faculty thus could dictate the essence of a college education. Now, however, the situation is reversed, with a scarcity of students and an oversupply of faculty. Riesman traces this transformation and sheds new light on what has become a virtual counterrevolution in academic life—with students choosing among institutions more freely than ever before and increasingly unwilling to subordinate themselves to faculty and institutional demand.

In the next four chapters, Riesman analyzes today's educational dilemmas in detail. He looks at the marketing techniques colleges are using to attract both new and traditional students, at government regulations seeking to ensure fair recruiting practices, and at attacks on admissions testing that could limit students' choice of college instead of protecting their rights. He singles out two distinctive types of institutions—explicitly religious colleges and community colleges—as examples of those most likely to survive with their institutional goals intact.

In the final four chapters, Riesman addresses needed action. He advocates major improvements in information for students—general counseling about college choice and programs, community college counseling about transfer opportunities, advice to undergraduates about academic programs and career possibilities, and the establishment of statewide or regional computerized educational information systems. He shows how professors can help students become "self-starters" in learning by taking initiative for their own education. He urges accrediting agencies to head off government controls by improving their staffs and visiting teams and by correcting their oversight of unethical institutional practices. And he recommends expanded Federal and state efforts to improve counseling, advising, and accreditation, rather than direct regulation of college procedures, to balance the legitimate needs for consumer protection of students with the equally legitimate needs for maintaining institutional autonomy.

12:1.1/81-3

The Modern American College, Arthur W. Chickering and Associates, 800 pp. (Jossey-Bass, San Francisco).

This handbook, which redefines the overall purpose of American higher education, has broad utility for institutional planners, curriculum specailists, policy-makers, program evaluators, and others concerned about the mission of today's colleges and universities. The book's central arguments are that human development can meet the need of the modern American college for a unifying purpose, and that increased understanding of adult development and learning will lead to substantive improvements in curriculums and educational practices. To present his philosophy, Chickering has brought together more than 50 authorities from various disciplines to summarize what is known about the nature and patterns of adult development and to spell out the implications of this knowledge for curriculum, teaching, student services, administration, and academic governance.

The book is divided into three parts. Part One provides a synthesis of basic information about the development and learning of adults—both traditional college students and those over 25 years of age. Fourteen chapters present key concepts and information regarding the life cycle, including the typical challenges and concerns of each life stage, the patterns of intellectual and ego development, and the learning problems that students of different ages face. The 14 chapters are titled: "The Life Cycle," "Ego Development," "Cognitive and Ethical Growth," "Intelligence," "Moral Development," "Humanitarian Concern," "Interpersonal Competence," "Capacity for Intimacy," "Professional Preparation," "Learning Styles and Disciplinary Differences," "Women's Educational Needs," "Special Needs of Blacks and Other Minorities," "Interests of Adult Learners," and "Opportunities for Adult Learners."

Part Two details the curricular implications of the findings on today's students and their needs, discussing a variety of academic disciplines and professional programs. For each of 14 fields (English, theater arts, philosophy, history, economics, psychology, anthropology, biology for nonmajors, interdisciplinary studies, business administration, engineering, education, human service, and the helping professions) two general questions are addressed: How can the ideas and information from Part One further the objectives of this discipline or professional program? How can discipline or program help students cope with the developmental and life-cycle challenges described in Part One?

Part Three applies the wealth of new knowledge about adults aged 18 to 80 to the many aspects of college and university operations. This part includes 14 chapters titled: "Acquisition of Purpose," "Instructional Methods," "Individualized Education," "Field Experience Education," "Mediated Instruction," "Assessing and Credentialing Prior Experience," "Student-Faculty Relationships," "Out-of-Class Activities," "Residential Learning," "Educational Advising and Career Planning: A Life-Cycle Perspective," "Governance," "Administrative Development," "Professional Development," and "Evaluating Adult Learning and Program Costs." These chapters demonstrate how specific functions can be managed to respond to the developmental needs and life-cycle concerns of students, faculty, and staff alike. For example, chapters on institutional operations can be used by administrators and faculty leaders to ensure that institutional policies and practices are appropriate to the students being admitted. The chapters on residential learning, educational advising, and career planning are pertinent to the diverse responsibilities of student affairs officers. And those on administration, governance, professional development, and evaluation will be useful to administrators in maintaining consistency among institutional goals, educational practices, and administrative organization and development.

12:1.1/80

Three Thousand Futures: The Next Twenty Years for Higher Education, Carnegie Council on Policy Studies in Higher Education, 439 pp. (Jossey-Bass, San Francisco).

This volume contains the 137-page final report of the Carnegie Council on Policy Studies in Higher Education, plus 12 resource supplements on higher education in the future. In viewing the future with a perception gained from its more than five-year study of higher education, the Council provides a view and recommendations that warrant the attention of every institution concerned with effective survival.

The Council's report first takes a look backward, recalling "some myths about the 1970's," and projects "the fears of some and the hopes of others'' with 1980 as a base point. In anticipating the next two decades, the report analyzes enrollments, identifies options, and proposes courses of action. In the Council's view, ''demographic depression'' of the next two decades will lead to declines in undergraduate enrollment of from 5 to 15 percent and bring fundamental changes to many American colleges and universities. Although the Council does not paint as gloomy a picture of that depression as some other recent studies have done, it does say that the problems will be serious enough to threaten the survival of some colleges and the integrity of others: ''A new academic revolution is upon us. In the 1960's, the revolution consisted of many institutions trying to become research universities and mostly failing. In the 1980's and 1990's, it will take more and more the form of following the long-time example of the community colleges in adjusting to the market, and often succeeding. Excellence was the theme. Now it is survival. Institutions were trading up; now they are trading down.''

By the year 2000, the Council says, colleges and universities will enroll ''more women than men, as many people over 21 as 21 and under, (and) nearly as many part-time as full-time attendees.'' A quarter of all students will be members of minority groups.

The enrollment decline that the Council anticipates over the next 20 years will affect different types of institutions and different groups within institutions in different ways. In addition, the impact will be felt more strongly in some regions of the country than in others. The Council suggests that students will be the big winners and faculty members the big losers: ''Students will be recruited more actively, admitted more readily, retained more assiduously, counseled more attentively, graded more considerately, financed more adequately, taught more conscientiously, placed in jobs more consistently. The curriculum will be more tailored to their tastes.''

On the other hand, the Council says, all faculty members will face losses in real income, and some will lose their jobs: ''In 2000, there will be far more faculty members 66 and over than there are faculty members 35 and younger. An older faculty is a higher-paid faculty—adding to costs; less resilient in adjusting to new fields that come along; farther removed from the age of the students.''

In general, the Council concludes, the next 20 years will be fraught with problems for higher education, many of them already visible: ''A downward drift in quality, balance, integrity, dynamism, diversity, private initiative, (and) research capability is not only possible—it is quite likely. But it is not required by external events. It is a matter of choice and not just fate.'' To help administrators and faculty leaders determine what must be done now to ensure survival, the Council outlines a series of actions that should be undertaken to assess institutional prospects and prepare for the future. The 12 resource supplements—complete with 135 charts and supporting data in tabular form—present the findings on which the Council's conclusions and recommendations are based and provide additional information for further analyses and projections. Both the recommendations and data enable decisionmakers to compare conditions on their own campuses with those of similar institutions nationwide, to understand new trends and major ongoing developments, and to design individual survival strategies grounded in the best information currently available.

12:1.1/79-1

American Higher Education in Decline, Kenneth H. Ashworth, 105 pp. (Texas A&M University Press, College Station).

Ashworth contends that there is much that needs to be put right in higher education, and he intends that this book "stimulates the dialogue that will bring about a rethinking of some of the processes of higher learning." Logan Wilson, in the foreword to the book, shares Ashworth's view in stating "that a good many educators need to have their complacency disturbed and that the public at large should be more cognizant of unmistakable evidences of deterioration." Whether the conditions or trends observed are as pervasive as suggested or warrant such alarm is debatable. Yet any relaxation by colleges and universities of critical self-appraisal could be serious, and the role of Ashworth and other observers in demanding excellence must be applauded.

The litany of ills is better known than the cures—rising egalitarianism and a trend to collectivism resulting in the politicization of institutions and a diminution of their traditional autonomy; Federal largesse as an inducement for change; and institutional competition for students producing such outcomes as relaxed entrance requirements, watered-down courses, and easier grading standards and graduation regulations. Bureaucratic edicts and court orders set limits from the outside about who can be admitted, employed, promoted, or terminated. According to Ashworth, the regional accrediting associations have neglected their monitoring functions to the point of countenancing distortion in the institutional labeling of their wares and even the awarding of diplomas to the unqualified.

Ashworth recommends that educators and Federal bureaucrats, in order to deal with increased federal intervention, become more familiar with their respective sectors through rotating assignments, thereby improving "perspective, perception, and empathy." He would have the Federal Government establish or encourage programs to increase students' freedom of choice to attend private rather than public colleges and universities, despite the higher costs to students. He warns that even if the new Department of Education were not to become a full-blown ministry of education, "in time it would become well enough organized to exert additional controls over all higher education."

Ashworth sees the no-growth period immediately ahead as an opportunity for better quality control. In his last three chapters, he goes beyond a diagnosis of higher education's ills to highlight some prospects and predictions. He makes suggestions for shaping a system better suited to the needs of a postindustrial society in what will continue to be a highly competitive world, and he expresses the hope that higher education will exercise a role in elevating standards of human achievement and worth.

12:1.1/79-2

Conflict, Retrenchment, and Reappraisal: The Administration of Higher Education, Clark Kerr, David Riesman, John Hogness, Harlan Cleveland, and Howard R. Bowen, 166 pp. (University of Illinois Press, Urbana-Champaign).

This volume presents the first five "David D. Henry Lectures" and some of the discussion and response following them. The papers are authored by individuals who are leaders in the practice and in thought about the practice of college and university administration.

Although administration is the general subject, the topics presented represent the separate interests of the lecturers. Clark Kerr speaks of change and conflict, David Riesman of quality and retrenchment, John Hogness of reappraisal, Harlan Cleveland of the requirements of educational leadership, and Howard Bowen of the new socially imposed costs of higher education. As stated by John Corbally in the introduction to this volume, each of the Henry lectures "expresses a belief that administration and administrators can and must make a difference in educational institutions. These lectures contain strong statements—the statements of individuals who...find it necessary to identify problems and to attack those problems forthrightly and openly. The statements are not those of individuals who are adrift or afraid."

No annotation can even partially reflect the depth and substance of these lectures. The quality can be judged from some favorite quotes. In paying tribute to Dr. Henry in the first lecture, Clark Kerr recognizes an ability that could be the essence of administrative leadership: "He has the art of presenting the one most constructive suggestion at the carefully chosen most appropriate moment, and of advancing it in a fashion that does not challenge personal opposition." Again, Clark Kerr: "The management of conflict requires an anticipation of points of conflict, the dispersal of conflicts over time and place so that they do not inflame each other, the development in advance of agreed upon rules of the game, the incorporation of all important groups into the political process so that each may have a stake in a peaceful solution, the creation of mediatory and adjudicative agencies, and the finding of solutions that are constructive in the long run."

David Riesman, on maintaining quality graduate education, states: "I might add that because innovative teaching is so exhausting, state laws or regential regulations which require large amounts of it in terms of formal contact hours are self-defeating for serious faculty members. Such regulations will lead to routinized performance rather than a person giving his or her arduous best to teaching."

Harlan Cleveland, speaking on the education of administrators for higher education, makes this observation in promoting a global perspective: "We all know that the only truly interdisciplinary instrument is not a committee of experts but the synoptic view from a single integrative mind—yet the academic reward system often promotes those who remain close to their starting specialties and penalizes those who reach out to find connections with the rest of reality."

In the last paper, Howard Bowen discusses socially imposed costs of higher education, estimating the cost relating to personal security, work standards, personal opportunity, participation, public information, and environmental protection as 8 to 10 percent of total educational and general expenditures. Even more important than these costs is his concern " that the proliferation of socially imposed activities and governmentally mandated programs represents a threat to the kind of institutional autonomy which is the foundation of academic freedom."

12:1.1/79-3

Disorders in Higher Education, Clarence C. Walton and Frederick deW. Bolman, eds., 212 pp. (Prentice-Hall, Englewood Cliffs, N.J.).

This volume contains a diverse set of nine papers that were provided as background reading for the 66 participants in the the American assembly on "The Integrity of Higher Education" in April 1979. The papers address the principal disorders afflicting the moral and intellectual integrity of colleges and universities.

Frederick Bolman discusses the failures of the modern university, viewing internal demoralization as the chief enemy. He contends that higher education needs renewed vision about its function and form in and for society. Richard E. Anderson state that economic analysis of our colleges and universities is limited by our inability to assess their input realistically. This leads to confused decisions about use of limted resources. Carl Kaysen argues for a better balanced assessment of government-university relations.

Lloyd H. Elliott sees the influence of external groups on our institutions as endangering integrity, and he calls for a new dedication to the intellectual core of higher education. Richard M. Cyert argues that the complex nature of institutional governance makes it especially important that trustees, administrators, and faculty understand the institution as a whole. Roy E. Licklider calls for faculty to have greater responsibility for performance in teaching and research, and for the institution as a whole.

Willard F. Enteman suggests that widely held stereotypes distort the perception of students and their learning. As individuals and groups they have certain rights and certain limitations too long neglected. The explosion of knowledge threatens the college curriculum, according to Elizabeth T. Kennan. She suggests curriculum reforms based on broad principles, including renewed attention to general education. Clarence C. Walton suggests that universities and colleges have difficulties relating means and ends, and believes principled reform is badly needed.

12:1.1/79-4

Higher Education and Government, W. Todd Furniss and David P. Gardner, eds., 144 pp. (American Council on Education, Washington, D.C.)

One of the few slim volumes to appear these days, *Higher Education and Government* crowds the essays of 22 contributors into less than 150 pages. Their task is to explore the extent to which the responsibilities of higher education and government are now at odds, which responsibilities each properly claims, and how conflict should be managed. The essays reflect the premise that, in order to do its job, a college or university needs the authority to decide who shall teach, what shall be taught and how, who will be admitted to and graduate from an institution, what research will be done, and how institutional resources will be apportioned.

The authors agree on a number of points; for example, that higher education requires autonomy in making internal decisions, and that the government, representing ultimately the will of the people, is within its rights in demanding accountability of all social institutions. The distinctions to be made between control and accountability are, of course, crucial, and these draw the interest and comment of the authors.

The authors perceive some real and present danger in certain trends. In the words of Robert Rosenzweig: "We are the victims of the least glamorous and the most characteristic affliction of modern social policy—the unintended consequence." Government's intentions—to achieve a just and economically sound society—are essentially those of higher education. But, Rosenzweig maintains, the means by which the government pursues its goals sometimes threaten the fiscal and educational integrity of institutions of higher education. "In a few instances when an outright attack on colleges and universities promised to undermine a fundamental academic prerogative such as the peer review system for decision making, the threat has been reasonably easy to turn away by a showing of the adverse implications associated with such heavy-handed efforts. To mount a defense against 'unintended consequences,' however, is a far more difficult and elusive task, particularly when the intention of the primary action is acceptable, as in the case of attempts to eliminate discrimination in access to or employment in higher education."

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The 22 essays are organized around interrogative themes such as "Who Shall Teach?," Who Decides What to Spend?," and "Who Champions the Institution?," suggesting in each instance both the topic and the controversy of responsibility and control. While many specific suggestions are offered for reducing the threat to institutional authonomy, the editors suggest that "perhaps a greater value for the reader (is) observing good minds avoiding adversary rhetoric and coming to grips with the inevitable ambiguities that arise when our human institutions seek new and lofty goals."

See 32:2.0/77 **Leadership for Higher Education: The Campus View,** Roger W. Heyns, ed.

This volume presents papers of campus leaders who share their practical experiences and their reflections about the role of leadership. The papers are short, about six pages each, and organized under 11 topics, making it easy to select entries of special interest.

For reference use of this volume, the table of contents, exclusive of authors, is as follows:

1. On Becoming a Leader
    - The Presidency: A Personalist Manifesto
    - Cooperative Leadership
    - The President's Role
2. Making the Most of Faculty Leadership
    - Faculty Governance
    - Developing Faculty Leadership
    - Achieving Broad-Based Leadership
3. Designing New Personnel Policies
    - Policies as Reflectors of Institutional Goals
    - New Policies for the Part-Time Faculty
    - New Policies for Changed Institutions
4. Encouraging Voluntary Support
    - Encouraging Private Support
    - The Future of Voluntary Donations
    - The College Endowment Funding Plan
5. New Obligations to Students
    - Institutional Response to Students' Rights
    - A New Focus for Administrators
6. Balancing Student Retention and Academic Standards
    - Accommodating the Nontraditional Student
    - The Salisbury Experience
7. Planning New Departures in Curricula
    - Effective Education for the Unprepared
    - Outward Forms of Inward Values
    - Curricula to Develop Conscience and Consciousness

8. Fitting Graduate Education to Society's Priorities
    - New Quality Ratings: A Force for Reform
    - Reassessing Graduate Education
    - Graduate Education As Liberal Education
9. Revising and Cutting Academic Programs
    - Doing Well and Less
    - Retrenchment: The Case at CUNY
    - Managing Under Depressed Funding
10. Retrenchment: The Case at CUNY
    - Managing Under Depressed Funding
    - Educational Leadership or Institutional Reflex?
11. Influencing State Higher Education Policies
    - Making the Case for Higher Education
    - How to Work with State Legislatures
    - The Higher Education Climate: Separating Facts From Myths

12:1.1/77-1

The Third Century: Twenty-Six Prominent Americans Speculate on the Educational Future, Cullen Murphy, 196 pp. (Change Magazine Press, New Rochelle, N.Y.).

Change magazine asked each of the leaders in higher education identified in a 1974 poll to write an essay on his or her view of the educational future, to ponder the dilemmas and directions for higher education in particular, and to develop projections and prescriptions at least through the turn of the century. The authors are "household" names in the higher education community. And while their crystal balls are no clearer than those of others, their experience undoubtedly assists in clarifying whatever blurred images are visualized.

The most prominent future theme is summed up by the term "lifelong learning," which is seen as providing one alternative to the prospect of decline and possibly broadening enrollment and curriculums to include more adults, occupational training, updating of professionals, and leisure pursuit courses.

A second major theme is increasing egalitarianism, with expected steady extension of higher education to those formerly limited in their ability to participate because of income, race, and sex. The authors offer warnings regarding the balance between equality and quality, but do not specify what erosion in quality has taken place as a result of expanding opportunities or provide any proposals for stemming further erosion.

Governmental intervention in college and university affairs is the third major theme, raised with intensity by, among others, Frank Newman. He sees the possibility that governmentally required bureaucratic limitation will reduce higher education to the condition of timidity associated with elementary and secondary education, which has long suffered under many layers of governmentally imposed bureaucracy.

A fourth theme is sounded by about half a dozen contributors, but mildly. This is the standby of the futurism of the past—new technology. The authors suggest that new technologies can help cut costs by replacing that expensive form of higher education—a professor instructing a handful of students—with more economical approaches.

Nathan Glazer, in his introduction to the volume, masterfully sums up these themes, as well as others that played major roles in projecting the future of higher education 10 or 15 years ago—education for "one world," the student role in governance, education in foreign cultures, and student unrest. He also "takes a larger view of the enterprise, a 'sociology of projection,' akin to the sociology of knowledge, and to consider who is worried about or optimistic about or even bothers to note what, and, as far as one can judge, why?" Finally, he considers the purpose of such exercises and analyzes the problem of projecting the future as against engaging in the task directly.

12:1.1/77-2

Legacy of the Seventies, Lewis B. Mayhew, 366 pp. (Jossey-Bass, San Francisco).

This volume provides an expert appraisal of the revolution in higher education, which the author sees beginning about 1968 when such changes as nontraditional study, new organization structures, and use of educational technology were advanced and undertaken. Mayhew discusses the causes of these changes and shows how and why, if they are accepted into the mainstream of higher education, they will drastically alter the meaning of education and modify present concepts of academic rigor and excellence. The evidence presented comes from the author's visits to many campuses, reviews of several hundred institutional self-studies, the growing polemical and research literature, and the various state and Federal provisions for higher education.

Mayhew begins with the themes that have long characterized higher education in the United States (egalitarianism, primacy of liberal arts, professionalization of faculty, Federal involvement in finance, etc.), then examines six major areas for which significant change has either been urged or attempted. Changes considered by Mayhew include the development of supracampus public systems, which he believes has resulted in a diminution of authority and prerogatives allowed to local campuses and transferred those powers to more centralized state or suprainstitutional agencies. He fears that if institutions continue their quest for new markets, seeking new clientele to replace the expected sharp decline in enrollments of the traditional college-age group, "it could very well result in collegiate institutions almost becoming brokers of whatever kind of educationally related services for which there (is) a market and demand."

Mayhew identifies three principal forms of curricular and instructional change in the 1970's: "There is a considerable interest in nontraditional learning . . . and a resurgence of the traditional, with major and cognate fields increasing in significance for student programs; the restoration of more rigorous and specified kinds of evaluation of student performance; and a reconsideration of the values of graduation requirements, such as general education requirements." However, he claims that "nontraditional learning, in the sense of a full-blown movement, quite properly should come to an early end." He argues that "the logical extension of the nontraditional movement in aggregate so expands the concept of education as to render it meaningless."

While observing evidence that cost-benefit effectiveness of educational technology is still confusing and inconclusive, Mayhew recognizes the "clear educational potentiality of such things as the computer, video-tape cassettes, and television" and urges continued experimentation. He does not anticipate immediate favorable economic consequences, but does state that "by the twenty-first century existing educational technology or less expensive and more sophisticated variants of it could become as significant educationally as was the printed word."

Mayhew concludes by suggesting that within the U.S. higher education system, there should be constant experimentation with methods of instruction, learning, and operation: "Most of these experiments should be expected to fail or prove inconclusive, for the practices and processes of higher education change slowly. Out of the welter of experimentation and attempted innovation may come a synthesis of new developments that can change the face of higher education."

12:1.1/77-3

Managing Turbulence and Change, New Directions for Higher Education, No. 19, John D. Millett, ed., 100 pp. (Jossey-Bass, San Francisco).

This collection of seven essays explores the demographic, economic, and social changes taking place or likely to take place in the next few years and their effect on academic planning. John D. Millett begins by examining the relationships among management, governance, and leadership in light of 10 forecasted changes: falling enrollment of traditional age groups; stable or declining demand for college graduates; reduced income growth; decline of the research university; greater integration of learning and work; increased concern with instructional outcomes; increased attention to general education; new emphasis on continuing professional education; greater attention to continuing general education; and pressure on institutional costs. The essays that follow provide management and planning guidance responsive to the present and future environment.

Stephen Dresch sees signs of deterioration in the competence of both students and faculty members, which he interprets as a threat to the effectiveness of higher education. Dresch explains the effects of enrollment growth and changing age patterns on the structure and organization of colleges and universities. His observations regarding possible declining levels of faculty quality are debatable.

Jack Freeman reviews current planning imperatives, trends, and problems, and suggests 12 principles to guide responsive planning. His first principle—effective planning requires strong executive leadership and commitment—is dominant, and if observed would likely assimilate others.

Ronald Roskens and Herbert Garfinkel describe five trends that affect planning in the metropolitan environment: urban blight/white flight, suburban sprawl, "we want in," changed idea of relevance, and the postindustrial society. They then look at specific ways in which the university should respond.

In his essay titled "The New Clothes of Liberal Education," Robert Sandin describes the poverty of general education in terms of a thinning and flattening of the curriculum, failures to achieve a common principle of organization that brings unity out of the parts of education, declining enrollments, departmental rivalries, and failure to establish relevance of general education for society. He advocated new models consistent with traditional ideals yet suited to present realities.

Two short essays conclude the volume. The first, by Sherman Jones, discusses faculty involvement in college and university decisionmaking; the second, by Millett, describes some alternative missions for higher education in a future environment.

12:1.1/75-1

Formulating Policy in Postsecondary Education: The Search for Alternatives, John F. Hughes and Olive Mills, eds., 338 pp. (American Council on Education, Washington, D.C.).

The American Council on Education dedicated its 57th annual meeting (1974) to "the search for alternatives." The individual papers, perceptive and insightful as they are, often fail to address the theme of "alternatives" and remain isolated elements, even though their combined value is enhanced by organization into 10 topic areas. More distinctive contributions by the authors would have provided the comprehensive coverage and focus on *options* sought. Despite these shortcomings, the papers present much good advice for immediate and long-range policy formulation and decisionmaking.

Strategies for improving higher education management deal with administration of equal employment opportunity laws, the implications of faculty unionism for institutional management, and the effect of the common law on faculty-administration relations in circumstances of financial exigency. Papers on creative management deal with the task of reconciling contradictions, factoring the concept, and management as a political process. In planning for the steady state, commentary is made on the low-growth, high-inflation situation, required management talents, and faculty resource management.

Three topics address alternatives for financing higher education. With regard to policy, contributors discuss current issues in fundraising, the health and distress of institutional finances, and the deteriorating financial position of private institutions. They also study tuition in terms of the education market and the need for a national cost adjustment factor for higher education. In examining student aid, one writer concludes that the central objective of providing balanced financial sustenance for needy students is far from being achieved. Other contributors discuss the congressional strategy with regard to Title IV Federal student assistance programs, grants for students based on their own income, and differentiated aid programs for today's "emancipated" students.

Also discussed are strategies for improving programs in higher education. Major topics are: nontraditional programs, statewide planning, credentialing of experience, and instructional delivery system. Finally, four contributors speak of policy issues in education—public policy for a pluralistic system of higher education, student assistance and civil rights (as viewed by a Congressman), the search for alternatives, and the Administration's position.

12:1.1/75-2

Sponsored Research of the Carnegie Commission of Higher Education, Carnegie Commission on Higher Education, 397 pp. (McGraw-Hill Book Co., New York).

During its 6 years of existence, the Carnegie Commission on Higher Education made one of the most comprehensive studies of colleges and universities ever attempted. To achieve appropriate coverage of the broad subject areas under surveillance and provide the fact gathering and policy-oriented data and analysis necessary for its findings, the Commission encouraged and sponsored a great amount of research. Over 100 authorities and experienced observers were asked to bring their professional knowledge and experience to bear on subjects selected largely by the Commission. Their efforts yielded not only an 8-foot shelf of writings, but a valuable set of sponsored research reports, independent studies, and essays.

The Commission identified a number of priorities as vital both to the future of higher education and the purposes of our society. These priorities serve as the major sectional headings in this volume, which contains abstracts of the Commission's sponsored research studies: "Looking at the

System," "Diversity and Increasing Options," "Preparing for the Future," "Social Justice," "Service to Society," "Quality," and "Strengthening the Institutions." The abstracts are intentionally brief, three to four pages in length. But this compilation will serve both those persons who wish to know the central ideas and analytical approaches of individual contributors and those who wish to have a broad overview of the Commission's research. It is a logical companion, therefore, to *A Digest of Reports of the Carnegie Commission on Higher Education*, which was published early in 1974.

12:1.1/74-1

The Carnegie Commission on Higher Education: A Critical Analysis of the Reports and Recommendations, Lewis B. Mayhew, 441 pp. (Jossey-Bass, San Francisco).

Summing up his feelings after reading and attemping to digest all the printed studies, reports, and policy statements of the Carnegie Commission, Lewis Mayhew refers to a 1971 TV commercial of an uncomfortable man who, having completed an uncommonly large meal, says: "I can't believe I ate the whole thing!" Mayhew had several reasons for his gigantic effect. He designed each of the chapters in the book ". . . to epitomize one of the publications of the Commission in sufficient detail that the substance can be used safely by a reader who has never examined the original report." In addition to this summary of main points, Mayhew critiques the reports, trying to "gauge the real or potential impact of the work of the Commission on the nature, structure, functioning, and significance of American higher education." More than 50 documents, ranging in size from relatively few pages to almost 1,000 pages, are compressed in this single volume.

The volume is organized into 10 chapters. The first and last, "Context and Themes" and "Significance and Impact," are editorials. In the first chapter, Mayhew reviews the history of national efforts to study higher education, finding that the Carnegie Commission represents the most comprehensive organized attempt ever made to portray the condition of higher education, to analyze its components, and to indicate probable and desirable directions for future development. More importantly, he identifies the Commission's central themes such as belief in the validity of traditional values and techniques of education and a real but cautious egalitarianism that justifies Federal involvement in higher education to ensure that minority and disadvantaged groups are provided equal access. In the last chapter, Mayhew attempts to gauge the impact of the Carnegie Commission's work, and specifically, various detailed policy recommendations. Although it is too early to make definitive statements as to the impact the full effort has had on the course of higher education, Mayhew has interesting commentary on the availability and use of the reports by faculty and key administrative officers. While boards of trustees ". . . were interested in particular recommendations they did not reveal deep awareness of the provisions of any of the reports.'' This lack of detailed knowledge is probably commonplace, and suggests the value of Mayhew's volume, as well as the three summary volumes issued by the Commission.

In Chapter 2, ''Policy Statements,'' 21 Commission reports are critically reviewed, beginning with a capsule summary of the major themes and various policy postures. The remaining chapters critically survey the sponsored research of the Carnegie Commission under the titles: ''Types and Examples of Institutions,'' ''Organization and Governance,'' ''Reflections on Higher Education,'' ''Education for the Professions,'' ''Financing Higher Education,'' ''General Reports,'' and ''Future Trends.'' The digest of each study, comprising five to seven pages, presents main observations, evaulates them in the light of generally available knowledge about higher education, and suggests implications. Few surpass Mayhew's ability to glean so much substance in such a survey.

12:1.1/74-2

A Digest of Reports of the Carnegie Commission on Higher Education, Carnegie Commission on Higher Education, 399 pp. (McGraw-Hill Book Co., New York).

This publication contains digests of the 21 reports issued by the Carnegie Commission on Higher Education from 1968 through 1973. Typically, these reports presented information and analysis in some detail and included specific recommendations or objectives. The digests, each about 10 pages, concentrate on general trends and conclusions, skipping the supporting analysis and documentation that make the Commission studies so rigorous and convincing. The summaries are excellent, however, and should encourage consultation of the full reports.

The Commission's recommendations are arranged in two ways. First, the full recommendations are organized according to the persons, agencies, and institutions most directly affected by them and most likely to be able to implement them. The Commission cautions, however, that action on many of the recommendations requires the concerted efforts of many different people. Second, the recommendations, in abbreviated form, are indexed by nearly 150 subject headings.

12:1.1/74-3

Higher Education and the Steady State, Larry L. Leslie and Howard F. Miller, Jr., 58 pp. (American Association for Higher Education, Washington, D.C.).

This paper (ERIC/Higher Education Research Report No. 4) discusses the no-growth or steady state projected in the early 1970's and its implications for higher education. The overview quoted below describes the contents succinctly:

Chapter 2 defines the steady state, tells what is commonly meant by the phrase and demonstrates that it is already largely a reality. This chapter shows that whether enrollments or institutional income is the criterion, no growth is an appropriate descriptor. Chapter 3 places the no-growth pheonomenon in its broader perspective. Provided here is a means for viewing present enrollment trends in an historical light. From this vantage point, it can be observed readily that there have been other such lulls in higher education enrollments, but that the general pattern over time has been one of constant growth. From this historical view, the genesis of a theoretical concept emerges. Further clues for this concept are taken from economic theory. The theoretical concept that emerges in Chapter 3 is labeled transverse progression: the concept that, *overall,* growth must continue to occur in essential social systems so long as the society itself continues to progress, as opposed to decay. At the beginning of Chapter 4 there emerges from this concept a framework for analyzing how an essential social system, such as higher education, is able to right itself in a period of decline and once again begin to show growth. This analytic framework is the structure for examining what will occur in higher education as enrollments decline, that is, as innovations are produced in attempts to reverse the downward enrollment trend. The five categories of the framework, or kinds of innovations, derive from Schumpeter's *Theory of Economic Development*. They are (1) the introduction of new products, (2) the introduction of new production methods, (3) the opening of new markets, (4) the employment of new supplies of productive factors, and (5) the reorganization of the enterprise. Utilizing this framework, Chapter 4 presents the heart of the paper—those facets of higher education that are likely to be affected in the steady-state era, and how. This chapter is sub-divided into sections corresponding to the five elements of the framework, i.e., the five ways institutions can and will respond to declining enrollments and the five areas of activity and concern within higher education during this period of readjustment. Chapter 5 concludes with a brief summary, three caveats, and some forecasts as to how higher education will fare in its attempts to maintain a constant growth, a "dynamic equilibrium." It is shown that institutions will seek to grow in new as well as traditional ways and that ultimately efforts will be aimed at qualitative as well as quantitative growth.

12:1.1/73-1

Goals for Higher Education: Definitions and Directions, David A. Trivett, 61 pp. (American Association for Higher Education, Washington, D.C.).

In 1973, the National Commission on the Financing of Postsecondary Education asked the Educational Resources Information Center (ERIC) Clearinghouse on Higher Education for a summary of higher education goals. Concluding that the concise statement sought by the Commission did not reside in any single report or survey, ERIC responded with this paper (ERIC/Higher Education Research Report No. 6).

The report begins by defining goals: "Goals can be defined as desirable conditions sought, expressed in broad, qualitative terms, representing conditions that may be only partially attainable. They are distinguished from objectives, which represent specific ends that may serve as measuring points for progress toward goals." Next, several historical statements of goals are presented, focusing especially on the Truman Commission's *Higher Education for American Democracy*. Goal statements promulgated by several state departments of higher education are given and compared, and task force documents, such as the Newman report and Carnegie Commission studies, are surveyed and appraised. The penultimate chapter examines three international documents that set some unusually value-centered goals for their respective countries. Finally, some speculative conclusions are offered about current and future goals for higher education.

The most singularly creative background established for developing goals is that found in *A Future of Choices* by the Commission on Educational Planning of the Alberta (Canada) Cabinet Committee on Education. The volume's underlying framework of abstractions represents the goals the Commission pursues. The framework begins with four basic ideals that are proposed to generate answers to questions such as "What is to be our vision for education in Alberta?": a *future-perspective; life-long learning*, faith in *participatory planning;* and development of socially sensitive, *autonomous individuals* and unequivocal support for their right to exist in an environment that will encourage personal growth to the fullest extent of their capabilities.

The Commission also reports 10 "Guiding Principles," which are the characteristics of a desirable education system as they were articulated by Albertans in hearings and presentations to the Commission: The educational system should be adaptable. Educational experiences should be relevant to both current realities and future probabilities. Various aspects of the educational enterprise should coordinate with each other and with other aspects of society. Diversity in educational experiences and organization should be encouraged. The educational system should achieve maximum efficiency with minimum effort and expense. Education should be available on a just and fair basis with equality of output or similarity in achievement and effect. All those affected should determine the policy for education. Educational activities should be related to the needs, aspirations, and rights of the individual. The educational system should strive for excellence in everything that is undertaken. Education should facilitate the human communication and social integration necessary for collective action to sustain personal growth.

12:1.1/73-2

Priorities for Action: Final Report of the Carnegie Commission on Higher Education, Carnegie Commission of Higher Education, 243 pp. (McGraw-Hill Book Co., New York).

Established in 1967, the Carnegie Commission on Higher Education issued 21 special reports in its 5-year study of higher education. From the hundreds of suggestions and recommendations made by the Commission, this final report selects a few key priorities as a framework for its summation. They are: clarification of purposes, preservation and enhancement of quality and diversity, advancement of social justice, enhancement of constructive change, achievement of social justice, enhancement of constructive change, achievement of more effective governance, and assurance of resources and their more effective use. The priorities for action chosen by the Commission are those they believe to be of great importance for the foreseeable future and that merit their costs.

The Commission recognizes some unwise directions taken by colleges and universities (e.g., lowering teaching standards and processing many graduates without regard to the needs of society) and urges the higher education community to convene for a basic discussion of purposes. The Commission's own suggestions for the purpose of higher education—to evaluate society for the benefit of its self-renewal—appears to be a response to this new direction.

The Commission sees the steady state of enrollment as an opportunity for emphasis on quality and makes recommendations in the areas of research, teaching, curriculum reform, campus environment, service, unique institutions, effective size, and academic standards. Of most importance to faculty and students is the Commission's recommendation that "there should be equal reward for teaching as for research, except for research at the highest levels of competence." The Commission provides statistics showing underrepresentation of minorities at all levels of higher education, and recommends that educational opportunity be extended by creating enough *open-access places*, improving old and creating *new alternative channels of life and work, financing student costs, adjusting* the postsecondary system *to accommodate students from a wider variety of backgrounds*, and *recruiting into faculty and administrative positions more women and more members of minority groups*.

The Commission lists forces for and against change, recommends that higher education should take the initiative in determining its own future, and then lists various forms in which constructive change might take place in the areas of student educational options, institutional diversity, and educational enrichment. The Commission also advances a warning: "The most important single issue about change is whether it will come primarily from internal leadership or whether it will be imposed more totally from external sources."

The Commission believes that higher education is inherently difficult to govern but that the present structures are adequate. Rather than any basic reform, the Commission favors improvements in 13 areas. The recommendations include encouraging the states to use broad instruments for coordination, preserving strong and independent boards of trustees, delegating basic influence over academic matters to faculties, and encouraging greater student involvement.

The Commission advocates a two-pronged search for better use of resources and augmentation of resources. Major ways to holding down costs are summarized and suggestions listed on how to increase income through Federal, state, tuition, and philanthropic sources.

The most difficult to follow of the Commission's precepts is that in order to obtain greater public support, higher education must demonstrate to the satisfaction of the public that its purposes are *essential* (emphasis added): "Not only has higher education lost a degree of public support in recent years, but it is now in a more competitive position vis-a-vis other national priorities."

The Commission concludes with specific recommendations for action from the states, the Federal Government, colleges and universities, parents, students, and employers. References, technical notes, and appendix tables and charts occupy over half the volume.

12:1.1/71

Report on Higher Education, Frank Newman et al., 130 pp. (U.S. Office of Education, Washington, D.C.).

The descriptive and analytical portions of this 1971 report are now well known by observers of higher education. Much of the work done by the Newman Task Force was subsequently studied in greater detail by the Carnegie Commission. The Task Force's approach was unique in examining the inadequacies of the higher education system in the light of the needs of society and the diversity of students entering college. The Task Force's recommendations on how the system can better match public interests therefore remain significant guides.

The Task Force was disturbed by trends toward uniformity in higher education institutions, growing bureaucracy, overemphasis on academic credentials, isolation of students and faculty from the world—in general, a growing rigidity and uniformity of structure that made higher education reflect less and less the interests of society. Their advice was to seek, through an intensive national effort, new forms of learning and new institutions—in effect, alternative paths to an education.

12:1.1/70

Identity Crisis in Higher Education, Harold L. Hodgkinson and Myron B. Bloy, Jr., eds., 212 pp. (Jossey-Bass, San Francisco).

The authors of this volume argue that colleges and universities, as a result of challenges to their established values, no longer know who they are or how they properly fit into the social structure. This identity crisis, in the authors' view, is "the most pervasive aspect of the contemporary adacemic scene."

In the first section of the book, three writers discuss the identity crisis from the standpoint of changes in the intellectual orientation of the university. In "Facts, Values, and Commitments," Daniel Callahan refutes the fact-value distinction on which the illusion of academic neutrality is based. Ruel W. Tyson, Jr., in "Confusions in Culture," points out that "we have been this way before" and that campus disruptions may be a replay of the old war between "the clerks and the men of feeling." Tyson's analysis is particularly perceptive in explaining that students seem to enjoy violent demonstrations not as rationality, not as politics, but as a kind of aesthetic experience. In "University and Society: Issues in Public Morality," Edward Joseph Shoben, Jr., finds the university a mirror of the larger society and proposes that, because of this, it is vitally important that the university be organized around its intellectual commitments to society—that is, around the rights of privacy, free inquiry, and so on. Shoben points out that, presently, there is an "operations gap" between the practices of the university and the moral values that stem from its intellectual commitments.

The second section of the book deals with the process of change. Hodgkinson presents a Utopian example of a university organized according to Shoben's admonition: it is based on its intellectual commitment, in this case taking free inquiry as its central organizing theme. In "Strategies for Academic Reform," John David Maguire offers a recipe for change that calls for new alliances among new constituencies, some of which have not worked before. Richard Werts presents a case study of curricular change at the Massachusetts Institute of Technology. Edward Schwartz creates a model for a radical "communiversity" based on the "new vision" of the young; its function will be to change society.

In the third section, three writers probe the "New Consciousness" as it relates to higher education. Paul Spike suggests that youth's new consciousness is primarily disillusionment with the dominating cultural style and that the real generation gap is a difference in the perceptual patterns of youth and adults. Myron Bloy maintains that the counterculture is consistent with the best of Christian principle, full of integrity and spiritual commitment. Lawrence C. Howard shows how the black consciousness offers a life-supporting alternative to the antihuman technotronic perspective of the dominating cultural style; because blacks are more distant, they can see the 'core'' society more realistically.

Although many of the identity problems existing in the late 1906's are not now in a crisis stage, the authors' observations of over a decade ago are still relevant to many emerging roles colleges may choose in the 1980's.

1.2 State Role

12:1.2/77

The Added Dimension: State and Land-Grant Universities Serving State and Local Government, Ione Phillips, 96 pp. (National Association of State Universities and Land-Grant Colleges, Washington, D.C.).

Founded by public initiative and with public funds, state universities and land-grant colleges have always had an educational mission broader than that of other types of higher education institutions. Public service has been and continues to be the added dimension. Despite this inherent responsibility and the growing needs among citizens and state governments for public services of an educational nature, the leadership and liaison required for effective interaction has not been developed.

To understand better and encourage what universities are doing to assist government, the National Association of State Universities and Land-Grant Colleges (NASULGC) conducted a survey of member universities. This publication provides the results of the survey, as well as an overview of state and land-grant university public service activities geared to government needs. It features, in addition, a number of indepth descriptions of some of the more extensive programs underway across the country.

In looking at the problems in building communication channels between government officials and their public universities, the Association identifies five major problems: (1) organizational difficulties in securing scholars' cooperation; (2) incentives for faculty to participate; (3) understaffing of existing information-transferring organizations; (4) incongruency between the crisis-oriented needs of legislators and the long-range research of universities; and (5) unavailability of funding. Money problems, as in most other instances, far outstripped any other factor as a primary barrier, according to the survey participants.

Based on survey results, news releases from universities, and personal interviews, the types of services that universities seem to be providing most effectively for government include: publication of special reports on topical issues; sponsorship of seminars, workshops, and short courses for government officials; development of evaluation tools for use by various units of government in assessing their services; publication of business and economic reports dealing with the effect of various factors on the state's economy; and contract research on topics specified by governmental units.

A short chapter describes the size and scope of technical service units at institutions responding to the NASULGC survey. Subjects covered include the budget range of service units, staff size, types of services, the critical role of contract research, state obligations, solving specific problems, seminars, and training programs. These chapters study in some detail the successful service operations of Tennessee's Institute of Public Service, the Pennsylvania Technical Assistance Program of the Pennsylvania State University, and five universities that provide technical services through a school or college as an adjunct to student education. The programs of these institutions can serve as models for states that are looking for guidance in developing effective government service programs.

12:1.2/76-1

Information and Analysis in the Context of Institutional-State Relations: The Tie That Divides Us, William Johnston, ed., 133 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This volume contains the views of a diversified group of spokespersons on the use and value of information and analysis in strengthening communication between institutions of higher education and state governments. Ten papers are presented starting with the state's perspective as seen by Richard Lamm, Governor of Colorado, and ending with Martin Kramer's views on the role of the Federal Government—the third party to institutional-state relationships.

Governor Lamm charges higher education with the task of providing much of the creativity that this society will need to survive in the years ahead. The people, he says, create "universities and colleges not primarily for the purpose of taking action . . . but for searching and promoting truth through the fair combat of ideas." John Oswald, president of Pennsylvania State University, continues this theme by arguing that the state's *first* responsibility to institutions of higher education is "to preserve, nurture, and promote those human resources of intellect which will benefit the human condition, both of society and of the individual."

Harold Hodgkinson presents some selected demographic trends with implications for higher education planning: the decline in the 18 to 24 year-old population after 1980; net decline in family income among minority groups in comparison with white income since 1971; the increasingly early sexual maturity of females; and the decline in public confidence in American institutions. He then looks at the issue of credentials, and observes that if they continue to be based on grades and grades are not functionally relevant to success in American life, planners have a very real problem.

In discussing the mission, role, and scope of community and junior colleges, Edmund Gleazer talks enthusiastically about an expanding interest in providing educational opportunities and services that will require new desciptors, a new terminology, and an adaptive structure. He states that the needs of society for energy, transportation, lower crime rates, improved health service, adequate food supply, clean air and water, etc., have educational components that, if properly addressed, can in time reduce the dollar requirement for the problem area.

Three members of NCHEMS, John Chaney, Ben Lawrence, and Melvin Orwig, begin a section on information and analysis in the context of institutional-state relationship with a discussion of philosophical-jurisdictional issues, operational issues, and technical issues. They believe that a more definitive, causative relationship will develop between information supplied and policy formulated and implemented. In time, this will encourage greater cooperation between state-level agencies and institutions in shaping information needs.

In discussing the quest for increased productivity, John Keller brings attention to an important volume, *Measuring and Increasing Academic Productivity*. In describing the difficulties involved in relating the value of outputs to inputs, he uses some analogies to everyday experience to assist planners in developing the type of thought processes required in analyzing alternative marginal expenditures so as to maximize cost-effectiveness.

George Weathersby discusses the potentials of analytical approaches to educational planning and decisionmaking, saying that it is very difficult to identify and document different decisions that have been made primarily on the basis of analysis. Morgan Odell presents a seven point agenda with regard to the kinds of information about independent colleges that the states need to have, but he cautions that the independents are already accountable in many ways and should not be made to reveal certain types of institutional information.

Two short papers conclude the volume. The first, by Donald McNeil, discusses the function, responsibilities, and information requirements of statewide agencies. The second, by Martin Kramer, focuses on the Federal Government as the third party to institutional-state relationships.

12:1.2/76-2

The States and Higher Education: A Proud Past and a Vital Future, and commentary **Supplement,** Carnegie Foundation for the Advancement of Teaching, 94 and 66 pp. (Jossey-Bass, San Francisco).

In examining the complex interrelations between the states and higher education, this relatively short commentary by the Carnegie Foundation will challenge state officials to absorb and respond to the numerous and comprehensive observations and recommendations made. The *Supplement*, providing more descriptive detail, is slower paced, but both volumes still require methodical reading and analysis for maximum value. State ranking measurements accompany most observations, which, for at least the lower ranking states, establish the reality of disparities and should prompt remedial action.

After brief recognition that "higher education in the United States . . . has been comparatively effective in both qualitative and quantitative terms," the Carnegie Foundation quickly points out the major problem areas. Despite the great expansion of the 1960's, some surplus facilities in teacher training and Ph.D. output still remain relative to the current level of effective demand. There is greater imbalance, however, in the deficiencies in some states that have failed to provide a well-rounded system. These deficits are in open-access spaces, state scholarship programs, area health education centers, and health science centers.

The Foundation doubts that some States have both the capacity and the desire to undertake improvements in higher education. A new index of state fiscal capacity is presented that combines, on an equal weighting basis, the influences of per capita income, unemployment, and the degree to which tax resources have already been utilized.

The Foundation sees five major problems that lie ahead for states and higher education: (1) maintaining dynamism without growth, (2) avoiding parochialism as the individual states become a greater source of funds and policy, (3) supporting the private sector while maintaining its independence, (4) getting accountability in higher education without stifling it with detailed regulations, and (5) balancing the public interest against the need for institutional autonomy in academic areas of decisionmaking. Recommendations are made in each of these areas, and later sections of the report provide descriptions of current patterns and observations.

The *Supplement* contains a great deal of useful descriptive information about the states and higher education. Statistical information about support of higher education is presented for all 50 states. Proposals to define institutional-state relationships and responsibilities are summarized, and organization charts for 10 states and descriptions of the relation of 1202 State Postsecondary Planning Commissions to other state boards are presented.

12:1.2/75

Education and the State, John F. Hughes, ed., 275 pp. (American Council on Education, Washington, D.C.).

Under the rather loose rubric of "Education and the State," this collection of 11 papers and associated commentaries is organized in terms of four themes: education goals and their financing; equalizing educational justice; management and governance in higher education; and educational reform and innovation. Many of the papers deal with the findings of the

Carnegie Commission on Higher Education and were written by contributors to the Commission's reports.

The less formal commentaries frequently appear more creative than the papers. For example, Laura Bornholdt reminds us that John Rawls and Christoper Jencks would challenge the starting point of two of the papers by insisting that setting goals for higher education should not be attempted without setting some intermeshing goals for changing society itself. Harold Enarson takes exception to the assertion of some authors that a continued shift in the share of enrollment to the advantage of the public sector is somehow *bad*. The response of most commentators, however, is positive and supplementary. Robert Hartmen, for example, recognizes the paper by Allan Cartter and the longer Carnegie Commission report that it summarizes as ". . . the most lucid and comprehensive game plan for higher education that we have," then offers "friendly criticism."

In other areas, Virginia Smith summarizes the problems of coordination among postsecondary institutions to meet the needs of metropolitan constituencies, especially government units and agencies, and offers suggestions to help colleges define and achieve their urban mission. Earl Cheit gives thorough and comprehensive treatment to the "system" approach to the management of higher education, with an informative summary of both the intended and *unintended* consequences of management systems. James Perkins persuasively develops the thesis that it is difficult to coordinate decisions between the university and the government because no effective decisionmaking process exists within either. But Ernest Boyer responds that Perkins' analysis also bespeaks lack of leadership as well as coordination, and suggests that the central problem is not "How can we coordinate?" but "Is anybody in charge?"

The other papers on government strategies for educational reform and innovation, the faculty and the government, and legislative attitudes are also excellent. One wishes only that the essence of each work could be abstracted from the extended rhetoric (somehow believed necessary for public presentation) and made more widely available in condensed form.

12:1.2/71

The Capitol and the Campus: State Responsibility for Postsecondary Education, Carnegie Commission on Higher Education, 156 pp. (McGraw-Hill Book Co., New York).

As with so many Carnegie reports, this one on state responsibilities for planning and providing higher education is packed with information. The book deals mainly with the state's role in providing postsecondary education to its citizens. The chapters are short and tightly written; summary listings are used in some instances as an effective substitute for what would likely be a longer narrative text. The chapters deal with the following: the goal and the issues; nature of state responsibility; the governor-legislature and higher education coordination and planning; comparison of state effort; the state and the nonresident student; the state and private institutions; public and private tuition levels; public funds for private higher education; public accountability and institutional independence; and conclusions. Student resident and migration data and state financing statistics appear in appendixes.

While it has been 10 years since the Commission's recommendations were published, most are still relevant, and states should heed them, particularly those states that are singled out as failing to meet minimum standards. The Commission recommends that more states follow Wisconsin and Florida in making special grants to private institutions in support of medical and other professional schools. It proposes that approximately one-third of the cost of educating a student at a state institution be awarded to a student choosing to attend a private college. The issue of accountability in relation to both public and private institutions is also discussed, and the report makes a case for institutional independence and autonomy and suggests guidelines for achieving them.

Of particular importance is the Commission's concern with the growing dominance of governors over higher education in several states and the development of heavy-handed regulatory councils. Also, states will want to take a closer look at their financial support status as indelibly spelled out in the Commission's rankings. For most states, the record shows little improvement.

12:1.2/70

State Officials and Higher Education: A Survey of the Opinions and Expectations of Policy Makers in Nine States, Heinz Eulau and Harold Quinley, 209 pp. (McGraw-Hill Book Co., New York).

This survey concerns the manner in which "legislators and certain state executive officials perceived the problems and issues of higher education, their attitudes toward various aspects of higher education and their expectations of future development." The selected states include five with complex educational systems—California, Texas, Illinois, New York, and Pennsylvania—and four with less complex systems—Iowa, Kansas, Kentucky, and Louisiana. Those interviewed were state executives, legislators, and staff members most ultimately connected with legislation or appropriations for higher education.

The survey consists of the respondents' views, with the authors giving only occasional appraisal and evaluation. The respondents' opinions are organized into nine topics: "Prospects and Problems," "Information Pressures," "Control and Oversight in Higher Education," "Financing Higher Education," "Legislators and Academicians," "The Junior College

Phenomenon,'' ''Student Unrest: Causes and Cures,'' ''The University and Society,'' and Planning the Future.''

Most officials, it appears, thought ''things'' had been going well in their states, and each compared his or her state's educational system favorably with those in other states. This is a natural and expected response from leaders charged with responsibility for their state's educational progress; but it is also clear, from the range of achievements among states for a variety of quality indicators, that too few rigorous comparisons were being made. A number of California respondents agreed that their state was losing ground to New York. However, few states with less favorable environments expressed the kind of dissatisfaction that might be expected from a lower ranking status.

Often of key importance in a state's success was the idiosyncratic influence of personality. In a number of states, an energetic and capable governor was credited with large-scale innovations and improvements in higher education. In at least one other state, a governor had emerged who was trying to reduce the university's budget and influence.

Positive appraisals typically were expressed in terms of increased appropriations. However, real progress is not well defined by total dollar increases, and knowledgeable legislators might have been less enthusiastic if aware of the eroding effects of inflation and enrollment on increasing funding. This illustrates one pervasive dilemma mentioned by legislators—a lack of relevant information about their colleges and universities and, in many cases, incomplete or inaccurate information. Most respondents indicated, however, that the public did not demand much information from them on higher education and that the subject had low political salience.

See also: Topic 6, Governance and Coordination.

1.3 Federal Role

12:1.3/80

A Program for Renewed Partnership: The Report of the Sloan Commission on Government and Higher Education, Sloan Commission, 309 pp. (Ballinger Publishing Co., Cambridge, Mass.).

The Sloan Commission spent more than 2 years studying the relationship between government and higher education. Its recommendations, while not altogether new and sometimes mechanical, are based on substantial investigation and warrant serious consideration.

The Commission begins with a litany of the broad convictions that shaped its recommendations—the importance of preserving diversity, progress toward equal opportunity through institutional initiative and responsibility, maintenance of quality in retrenchment, Federal financial aid directed at the most needy, and the like. Of the many recommendations, two are deemed most important: (1) that a single agency be created to enforce equal opportunity laws and regulations in higher education; and (2) that the Federal financial aid program be reformed to ensure that grants are reserved for poor students and loans are used to widen choice of institutions by students and families of all incomes.

The Commission believes that the extension of educational opportunity has reached the point where a major overhaul is necessary if further progress is to be made. It points out that the 17 Federal laws and executive orders relating to equal opportunity and the eight different agencies responsible for enforcement establish a "diffusion of responsibility" that is a major source of confusion. And it believes that this fragmented machinery can do little to answer some of the different questions that remain. For example, what constitutes discrimination? Who should decide when it exists? On the basis of what standards? What should be done if it does exist? Who should decide that? The Commission also believes that a single enforcement agency "will bring together sprawling and conflicting procedures so that higher education and government can get along more amicably and more effectively." The Commission recognizes the judicial, rather than the administrative, mode that now prevails for enforcing equal opportunity statutes, and it views reliance on litigation as counterproductive since it reinforces adversary relations. Its proposed "Council for Equal Opportunity in Higher Education" would investigate all complaints and be responsible for their solution. It would have the power to issue rules and regulations and provide policy guidance on issues that bear on compliance problems.

The Commission also deals with Federal regulations concerning social security, worker's compensation, occupational health, and the like, concluding that these regulations are here to stay for all society, in substance if not in detail, and that "it is neither fair nor realistic for higher education to expect special treatment." With regard to Federal regulations involving financial accountability, the Commission proposes modification of the auditing process for research grants, which it believes has an adverse substantive impact on scientists and scholars.

Although academic reaction to growth in Federal regulation was the immediate stimulus for the creation of the Sloan Commission, its report covers all the major Federal policies of importance to higher education. In addition to regulation, chapters are devoted to financial aid to students, support for academic research, and medical education.

12:1.3/78-1

Government Regulation of Higher Education, Walter C. Hobbs, ed., 128 pp. (Ballinger Publishing Co., Cambridge, Mass).

This book examines, in a series of essays, the development of government regulation of higher education from a number of perspectives. There are two sides to every question, and the essays respond with what is good and what is poor in government regulation of academe. The issues of interest are framed by such questions as: "What are the regulatory agencies seeking to accomplish? Is that legitimate? Is it wise? How are they going about their tasks, i.e., what are their methods, and what is their competence? What are the probable consequences to academe? and What is, what can be, and what should be higher education's response?"

In the introductory chapter, Hobbs describes the long history of the law's involvement in academic affairs and outlines the theory of the most recent expression of legal intervention, the regulatory process. Robben W. Fleming, a labor lawyer and president of the University of Michigan, finds a major tension in the inevitability of government regulation vis-a-vis the diversity of U.S. higher education. However, he suggests reason for hope in the possibility of self-regulation systems in colleges and universities, coupled with incentives to institutions to develop dispute resolution procedures that diminish the need for government regulation.

Ernest Gellhorn and Barry B. Boyer, students of administrative law and practicing academic administrators, provide a detailed review of the major elements of the regulatory process as applied to academe. They believe that a right spirit will find opportunity as well as threat in the regulatory process. In the concluding essay, Stephen K. Bailey, a political scientist with the American Council on Education, agrees that a government must strike a balance between constraints that would cripple higher education's critical social function and a deference that would lead to unjustified license.

Estelle A. Fishbein and Robert L. Ketter clearly disagree. Fishbein, general counsel to a major private university, believes that the disruptive effect of government procedural requirements are disturbing enough, but the suppressive effect of government involvement on the exercise of intellectual judgment has, in her view, worked inordinate damage to the nation's colleges and universities. Ketter, president of a major state university, catalogs a lengthy series of detriments that he suggests government regulation brings to academe.

Alfred D. Sumberg, watch-dog of government action on behalf of the American Association of University Professors, returns the discussion to more conciliatory tones, addressing the regulatory issue from the perspective of its implications for the academic occupation. Sheila Tobias, however, based on her experience as affirmative action officer in a private university, submits that government regulation is neither necessary nor sufficient to achieve the results that Sumberg endorses. But Donald H. Wollett, director of a government agency that negotiates labor agreements with unions of state employees, argues that the professoriate has a remarkable capacity to withstand pressure, and he sees little reason to believe that its experience with government regulations will yield contrary results.

Evidently, interpretation of the consequences of the interplay of government regulation and higher education depends in large part on where the observer is standing. As Patrick Moynihan observed: "The issues in this book are undeniably political, and they will not be so much resolved as accommodated through familiar political process."

An additional issue of government involvement in higher education is the cost to institutions of administering Federal programs. A study by Carol Van Alstyne and Sharon Coldren, *The Costs of Implementing Federally Mandated Social Programs at Colleges and Universities* (American Council on Education, 1976), establishes costs related to employment—such as social security taxes—and compliance with equal employment opportunity laws as contributing most to the burden. In 1974-75, the average costs to six institutions surveyed of implementing Federal programs were small (1 to 4 percent) relative to total institutional operating budgets. However, these costs increased rapidly as new programs were added over the 1965-75 level, and they are expected to go higher.

12:1.3/78-2

Needed: A New Federal Policy for Higher Education, Joseph Froomkin, 82 pp. (Institute for Educational Leadership, The George Washington University, Washington, D.C.).

In talking about issues in higher education, Joseph Froomkin suggests that, despite relatively constant concerns over access, retention, diversity, financing, accountability, etc., over the past 15 years, current research provides few answers. "No one has spelled out the forces which will fashion the college and university scene a decade from now, or the new policies which will have to be introduced as a result of the anticipated changes."

Among his examples, Froomkin points out that we lose track of the social and economic origins of most delayed student entrants who live away from home, thus underestimating by 15 to 20 percent the number of students from poor families who participate in higher education. He states that our best estimates of the job prospects of college graduates indicate that in 1985, one out of three workers who are college graduates will probably fill a job that was filled by a nongraduate in 1970. Further, recent evidence indicates that the rate of return—the lifetime earnings of educated people—is likely to decline in the future, and some are concerned that Americans are becoming overeducated. Froomkin suggests that these and other conditions likely to prevail in the next 10 years must be carefully established and understood if Federal policies that are realistic and responsive to actual needs are to be formulated.

In Chapter II, Froomkin studies higher education in the mid-1970's beginning with the observation that the cost of higher education is roughly equal to the amount spent by Americans on the purchase and maintenance of motor cars. He points out that the real rate of growth of college and university resources declined from 11.4 percent a year during the 1960's to 3.8 percent a year in the 1970's, and discusses the contributing factors of over-expansion of institutional capacity, a slowdown in the rate of growth of appropriations due to a lagging economy, depressed tuition levels caused by high unemployment, and reduced endowment income. Faculty, of course, were the big losers, with average compensation lagging behind the Consumer Price Index by 2 percent a year. Froomkin sees little improvement likely in the next decade, with a "crisis" of bold proportions looming if present trends continue.

In Chapter III, Froomkin examines how institutions, faculties, and students are likely to fare should such conditions prevail. He visualizes much belt-tightening among institutions, college graduates having increasing difficulty in finding jobs that utilize their training, and further reduction in the number of faculty, with a lid kept on salaries.

In Chapter IV Froomkin presents three possible approaches to student financing: the laissez-faire economists' approach (in which each student bears a majority of the cost of higher education through loan programs); the Swedish model (in which the total burden of financing education is shouldered by the state); and the eclectic model (which involves concurrent work and study by students). In this last model, which Froomkin encourages, students would carry two-thirds of a full-time school load and work 25 to 30 hours a week, graduating in 6 years rather than 4. Part-time students would be reimbursed for their tuition and fees and would receive a small stipend ($150 a month). The gross cost of this program could be as high as $8.5 billion, but if all the subsidies were taxable to recipients, it is likely that a quarter of the cost would be recaptured through income taxes. This work-study plan is an innovative idea and is politically feasible as a pilot project, as Mr. Froomkin proposes. As suggested by Joseph N. Crowley, "Whether or not Froomkin's ideas reach the point of implementation, they will very likely help to force some hard thinking about how to cope with current trends and how to prepare for a future that ought not be left altogether to take care of itself."

12:1.3/78-3

Scholars, Dollars, and Bureaucrats, Chester E. Finn, Jr., 238 pp. (The Brookings Institution, Washington, D.C.).

In fiscal 1977, Federal expenditures for higher education amounted to nearly $14 billion. Yet the Federal Government does not have—nor has it ever had—a comprehensive and unified policy toward higher education. Instead, dozens of Federal agencies, each with its own policies and missions, administer the hundreds of programs that affect colleges and universities and the students who attend them.

In this book, the second in a Brookings series of studies in higher education policy, Chester Finn examines the complex relation between the

Federal Government and the nation's higher education system. After surveying the history and background of Federal involvement, he appraises the present condition of postsecondary education with an eye to what the government can and cannot do to alleviate problems that lie ahead. He scrutinizes Federal assistance programs and government regulation, makes suggestions for reform, and analyzes several schemes for government reorganization.

Finn cautions against an overhaul of Federal policy, programs, and structure. He believes that too much prescription may be worse than too little and that Washington's piecemeal approach to higher education has worked remarkably well—indeed, in his view, it has contributed much to the vitality and diversity of American colleges and universities. Future Federal policy should be directed toward increasing that variety and toward making it possible for students from every income level to attend the colleges of their choice.

12:1.3/77

The Impact of Federal Policies on Higher Education Institutions, Arthur T. Grant, ed., 66 pp. (Higher Education Program, College of Education, University of Arizona, Tucson).

The Education Commission of the States and the College of Education at the University of Arizona in 1976 cosponsored a conference to examine the impact of Federal policies on the operations of colleges and universities. This book contains the seven papers presented.

In the first essay, Ralph Huitt, executive director of the National Association of State Universities and Land-Grant Colleges, reminds educators that to secure changes in Federal policy, they must work with subcommittees and with the most important people on them. Homer Durham, former commissioner of higher education for the State of Utah, is concerned that the expanding Federal-state "partnership" in higher education will result in "more and more regulation to the end that universities and colleges are now among the most highly regulated industries in our national life." He advocates that state systems rally to serve essential institutional autonomy and press, on behalf of all, to redress the recent tendencies of the "Federal impact." Likewise, Allan Ostar, executive director, of the American Association of State Colleges and Universities, believes that the trend toward external control must be reversed, and cites ways in which this can be accomplished.

In the fourth essay, Louis Bender, professor of higher education at Florida State University, gives a brief overview of the problems of Federal regulations, a chronology of the evolution of the Federal presence, and an analysis of the impact of Federal regulations on contemporary colleges and universities. He concludes with some excellent recommendations—a Magna Carta for Higher Education, a more unified effort by the national associations, various regulation reforms, development of an economic impact statement, establishment of an American Council on Education task force to study the Federal organization appropriate for dealing with higher education, and support for an Institute for the Preservation of Independence of Higher Education.

Warren Hill, executive director of the Education Commission of the States, makes eight suggestions on how Federal policies can be used more effectively. John Millett, executive vice president of the Academy for Educational Development, believes that institutional planning commissions or teams on each college and university campus are the really vital policymakers who will determine the fate of higher education in the next few decades. And Russell Thackrey provides insights into the governmental process and a valuable history of the Miller Bill and other attempts at Federal legislation.

12:1.3/76-1

Federalism at the Crossroads: Improving Educational Policymaking: Samuel Halperin and George R. Kaplan, eds., 108 pp. (Institute for Educational Leadership, George Washington University, Washington, D.C.).

This volume is an anthology of 17 papers by a diverse group of policymakers and staffers from throughout the governmental system. Although there is much duplication, each author clearly makes distinctive contributions to the literature on Federal involvement in education.

Joseph M. Cronin of Illinois sees dangers in increased Federal control but questions whether state and local leaders have sufficient initiative to stop the trend while graciously accepting Federal support. John C. Pittenger of Pennsylvania is also disturbed by the developing imbalance in Federal-state relations and suggests both positive and negative facets of an appropriate level of Federal involvement that educators should seek. Perhaps more important and fundamental is his admonition that states should take on the responsibility for education to avoid the *need* for Federal intervention.

Coming from New Mexico (which ranks 49th in per capita income among the states but dedicates 75 percent of its total general fund toward the support of public education), Harry Wugalter argues that Congress tends to forget differences among the states in attempting to create a uniform legislation. He lists ways in which Federal involvement has caused concern, ways which stem, in part, from failure to observe the peculiarities of states and consult with state representatives.

Samuel Halperin describes Federal legislation as "increasingly preemptive, prescriptive and regulatory," with the cumulative impact being one of "over-regulation, underfunding and sluggish Federal implementation." He writes that Washington, D.C., is increasingly aware of the limits of Federal intervention, yet perceives state authorities and educators as defaulting on difficult problems so as to require Federal incentives to "solve the problem." He suggests strong countervailing initiatives by state and educational leadership, including strengthening the Education Commission of the States and requiring the state to contribute much more than their current 8 percent of the ECS budget. Fred G. Burke of New Jersey believes that public education vis-a-vis Washington, D.C., will continue to be reactive until a legitimate and powerful educational spokesperson can be developed.

Other papers in the volume include Warren Hill's discussion on the role of the state in education, with some excellent observations on the lack of coordinated state planning effort; Richard Dallas Smith's review of the struggle between Congress and the executive branch for policy control in education; two entries by Robert C. Andringa that include a list of 11 factors influencing Federal education legislation; and Thomas R. Wolanin's paper on congressional information and policymaking, subtitled "Don't Trouble Me With the Facts."

Readers of this anthology will be interested in the Institute for Educational Leadership's *Perspectives on Federal Educational Policy: An Informal Colloquium* (1976). This discussion by five seasoned, bipartisan, Washington-based congressional staffers and former executive branch aides complements and analyzes the main lines developed in *Federalism at the Crossroads*. The freedom and spontaneity of the open discussion encourages forthright and creative contributions that are stimulating and realistic. The participants were Robert Andringa, Chester E. Finn, Jr., Samuel Halperin, Michael Timpane, and Thomas Wolanin.

12:1.3/76-2

The Implications of Federal Education Policy, Clifton Conrad and Joseph Cosand, 65 pp. (American Association for Higher Education, Washington, D.C.)

This paper (ERIC/Higher Education Research Report No. 1) is designed to stimulate thought and evalution of the directions of current Federal policy in the support of higher education. The authors begin by tracing the role of the Federal Government in American higher education chronologically, illustrating major trends and identifying significant dates and events. They give particular attention to the 1972 Education Amendments, including the then newly-authorized student aid programs and the establishment of State Postsecondary Planning Commissions (1202).

The authors point out that current student aid funding levels are insufficient to bring access and reasonable choice to disadvantaged students. They further argue that increasing costs and rigorous financial needs tests are reducing the college attendance rates of middle-income students. The authors believe that equality of opportunity, defined both in terms of universal access and greater social equality, has not been adequately fostered through current Federal student aid programs, which are aimed directly at disadvantaged students. They also believe that Federal funding of postsecondary education through student aid has not necessarily served as an effective means to promote the financial well-being of colleges and universities. Private colleges, in particular, are still hard-pressed to provide additional financial aid to students not eligible for Federal or state programs or not adequately covered by such programs to meet their real expenses. Also hurting both public and private institutions has been the decline in constant dollars of Federal research grants and in the number of Federal predoctoral fellowships and traineeships. The authors temper their criticism by recognizing that the Federal Government provides only a fraction of the revenue of postsecondary institutions and therefore should not necessarily assume the major burden for maintaining its vitality.

The authors offer three recommendations for the Federal role in higher education: (1) that Federal assistance to postsecondary education be increased because institutions need help with their health and diversity problems and because the Federal tax structure is a more equitable base of funding state and local structures; (2) that institutional grants for *instructional purposes* serve as a second major vehicle of Federal support; and (3) that direct institutional support be *complemented* by student aid programs for disadvantaged students, especially the Basic Educational Opportunity Grant, State Student Incentive Grants, and College Work Study programs.

12:1.3/73

The Second Newman Report: National Policy and Higher Education, Special Task Force to the Secretary of Health Education, and Welfare, 227 pp. (MIT Press, Cambridge, Mass).

This second report of a study group headed by Frank Newman deals with the Federal role in postsecondary education. Two themes dominate the discussion: the necessity for the government to shift stress from growth to effectiveness, and the need to develop a new concern for the form of public support, the methods of decisionmaking, and the achievement of goals. Overall, the group concludes that the time has come "to reexamine our concepts of the structure and purpose of higher education so that we can more realistically design Federal involvement."

The task force examines the Federal presence in higher education from a number of perspectives: its funding programs, its tendency toward the regulation of the economics and administration of institutions, and its indirect influence through areas outside education. The Federal role is defined as the source of support and regulation "*creating conditions* under which the educational needs of American society are most likely to be met." Recommended Federal roles are guaranteeing openness and competition, providing funds to broaden the range of educational opportunities, and helping to accomplish tasks too extensive to handle on any other level. Recommendations are made on these responsibilities, supported by charts and tabular materials.

Among the issues raised are the disparity between public and private enrollments, the inability of a college degree to guarantee economic and social mobility, the egalitarian concept of education, the status of minorities, and the creation of "multi-campus-system bureaucracies." Concerning egalitarianism, the report states that, for the most part, access has been achieved, but "realistic mass educational opportunities" have not. It also observes that colleges are losing their placement capabilities; "a college education is now a necessary but no longer sufficient condition for social mobility." Among the new requirements cited as necessary for effective education are student motivation, a diversity of institutions appropriate to diverse student interests, and more recurrent education opportunities.

2.0 COMPREHENSIVE HANDBOOKS

12:2.0/74

Statewide Planning in Higher Education, D. Kent Halstead, 812 pp. (U.S. Office of Education, Washington, D.C.).

In its second printing, this extensive study of the theories, analyses, and procedures involved in statewide planning remains the most comprehensive single "how-to" volume available. Focusing on the "point of view" and "special problems" of state planning officers and technicians, the book identifies the major areas of concern of planners, their component parts, and the factors that should be considered in planning. The author has made a serious effort to collect and summarize virtually all the important facts, experience, and opinions on the subject. This information is distilled, wherever possible, into workable procedures for arriving at solutions. This concentration on technology and theory has reduced the obsolescence that affects many issue-oriented volumes.

The handbook is divided into 14 chapters that examine: design for statewide planning; socioeconomic comparisons among states; extending educational opportunity; financial aid to students; differential functions of colleges and universities; the search for educational excellence; meeting area educational program and capacity needs; measuring professional manpower supply and demand; college and university libraries; space management and projection; campus and building planning; financing higher education; government support and institutional economies; and state budgeting for higher education. Each chapter has an annotated bibliography.

Four appendixes include the methodology for projecting large enrollments, higher education price indexes, college and university financial data, and college and university student migration data.

3.0 CHANGE, TRENDS, AND FORECASTS

12:3.0/80

Academic Adapations: Higher Education Prepares for the 1980s and 1990s, Verne A. Stadtman, 207 pp. (Jossey-Bass, San Francisco).

In this book, Verne Stadtman looks at how colleges and universities adapted to changing conditions in the 1970's much in the same manner as Harold Hodgkinson did for the previous decade *(Institutions in Transition,* 12:3.0/71). Stadtman uses some of the same sources as Hodgkinson did to obtain his data and also relies heavily on questionnaires sent to presidents and other officers on the nation's campuses. This volume is a companion to the final report of the Carnegie Council on Policy Studies in Higher Education *(Three Thousand Futures,* 12:1.1/80).

In Chapter 1, Stadtman enumerates conditions that occurred or continued in the 1970's that altered the context in which colleges and universities operate, including shifts in power and authority, changed levels and sources of funding, reduced enrollments, efforts to reach new clienteles, pressures to expand career education, shortages of jobs for new Ph.D.'s, the continued growth of collective bargaining, and the increasing influence of state and Federal governments. He looks at such external development as the lowered voting age, Watergate, continuing inflation, and some decline in Federal support for scientific research at universities. The remainder of the book records how colleges and universities adapted to these events.

Chapter 2 deals with students: changes in ability, the trend toward seriousness, lifestyles, decline of political activism, student participation in governance, and student satisfaction. Stadtman concludes that most of this information is of interest in planning but helps little in understanding educational quality and the effectiveness of instructional techniques—areas of greater importance.

In Chapter 3, he discusses faculties from the standpoint of their growth, participation of women and minorities, part-time status, age, quality, representation in departments, academic personnel policies, governance, and collective bargaining. Stadtman sees as one of the consequences of the recent changes tensions between the adherents of traditional academic devotion and loyalty to the instruction and the "marketplace" orientation of some colleges and universities. Specialized faculties may be required in [illegible] future, or, alternatively, professional academics may someday accept their noncollegiate colleagues as peers.

Chapter 4 discusses presidents and trustees, with sections on length of service, authority, and concerns in 1978. Chapter 5 looks at diversity in

American higher education. Stadtman maintains that what diversity has been lost among institutions has been offset by the increasing diversity of programs within institutions as they become larger and more comprehensive. He fears for the diversity represented by research universities because research, their most distinctive activity, recently has been endangered by neglect and, perhaps, overdependence on a single source of funding. He is also concerned for small, experimenting, and developing institutions with financial difficulties, stemming from enrollments of less than 1,000 students (a "peril point"), that are struggling for survival.

Chapter 6 discusses the reasons for decreasing enrollments, policies to increase enrollments, and enrollment decline and the new "consumerism."

12:3.0/76

Presidents Confront Reality: From Edifice Complex to University Without Walls, Lyman A. Glenny, John R. Shea, Janet H. Ruyle, and Kathryn H. Freschi, 261 pp. (Jossey-Bass, San Francisco).

This book is based on a national survey of college and university presidents intended to obtain their firsthand impressions of the current campus situation. The survey was designed primarily to determine the types of institutions and the manner in which they are being affected by stable or declining enrollments and funding, and the action they are taking. Representatives of 1,227 institutions, enrolling approximately two-thirds of all students in higher education, returned usable questionnaires.

Chapter 2 of the book concentrates on how presidents anticipate and perceive changes in student enrollments, plant and operating expenditures per student, and deferral of physical plant maintenance. Chapter 3 examines shifts taking place in undergraduate enrollments by field of study (primarily growth of enrollments in vocational areas) and efforts to eliminate (or consolidate) courses and programs. Chapter 4 studies matters of faculty composition (tenured versus nontenured), workload, staff development, collective bargaining, and early retirement against the backdrop of new program priorities, level of funding, and changing enrollment patterns. Chapter 5 examines new markets, new resources, and reorganization of the industry, in addition to new products and new methods, as higher education's response to the slowing of enrollments and funding.

Chapter 6 considers various planning and management techniques that are being used to increase institutional responsiveness and acquire needed resources. Chapter 7 examines the shifting locus of general decisionmaking authority from the campus to higher levels and its consequences for financial support, flexibility in campus use of funds, curricula reform, and deployment of faculty. The chapter also considers administrators' perceptions on the helpfulness of various system and statewide master plans. Chapter 8 reports on the perceptions of instititional leaders regarding the effects of the new depression in higher education on quality of students, programs, and faculty. And Chapter 9 considers policy dilemmas, opportunities, and constraints arising from current and projected conditions.

12:3.0/75

More Than Survival: Prospects for Higher Education in a Period of Uncertainty, Carnegie Foundation for the Advancement of Teaching, 166 pp. (Jossey-Bass, San Francisco).

This first of a series of commentaries by the Board of Trustees of the Carnegie Foundation for the Advancement of Teaching discusses the fading of the old vision of higher education and the birth of a new vision to take its place. The problem for higher education, in the view of the Carnegie Foundation, is the *rapidity* of the change from growth to steady state and its *differential* effects on faculty members (according to their age) and on the various types of institutions.

In exploring the future of survival, the study first looks at the current scene and finds that most administrators view the process of adjustment without enthusiasm. Problems being encountered include conversion of facilities, rising tenure ratios and conflicts over tenure regulations, intensified struggles for authority, difficulties in increasing the student-to-faculty ratio, and various impairments of quality The Foundation concludes that the current period is different from the past in degree but not in kind and that the preceding "ups" and the current "downs" are amplified versions of trends previously experienced by higher education in lesser degrees.

The Foundation also concludes, based on preliminary enrollment forecasts, that although the university's share of students is likely to be reduced by external factors, the university has an above-average capacity to make individual, selective adjustments and to withstand competition. Public community colleges also appear to benefit from the external forces and to have the capacity to adjust to them. The less highly selective liberal arts colleges, the private 2-year colleges, and, to a lesser extent, the comprehensive colleges are in the least favorable position. In terms of maintaining one's share of total enrollment, it is better to attract all ages of students, provide for part-time attendance, be less dependent on teacher education, have public state support, etc. The steps that institutions are taking to determine their own fate include the exploration of "markets" for students; the establishment of flexibility; the development of a sense of mission, an identity, and a separate character; and the pursuit of greater productivity. One overriding initiative is the use of more "administrative muscle" to shift and better utilize resources. The Foundation suggests three major policies that would make good use of the capacities of higher education and aid the Nation in achieving its goals: (1) financial provision to allow universal access to higher education, (2) steady support at adequate levels for research and research training, and (3) support for the private sector as a good investment in diversity and in competition for the public sector.

The final section is a summary of the dangers and opportunities ahead, the assets and liabilities facing higher education in the future, and what most needs to be done.

12:3.0/73

The Future of Higher Education, Alexander Mood, 166 pp. (McGraw-Hill Book Co., New York).

This book is one result of a study conducted by the Public Policy Research Organization of the University of California, Irvine, which sought ways to improve the efficiency of higher education so that students' education would not suffer appreciably when budgets were reduced. The final report, titled *More Scholars Per Dollar*, generally argued that massive increases in the effectiveness of the higher education system could not be achieved without massive rearrangements of the system itself and of society's utilization of the system. This present volume focuses on how the system might look in the future and what basic changes are possible.

Mood and his associates begin by describing the context in which higher education operates and the forces which shape it. Most conditions are well known—the abatement of injustices, the spread of information, decline in the work week, growth of government, and expected advances in science and technology. Yet Mood then makes the claim that young persons are beginning to realize that human needs—to be loved, healthy, highly regarded, gainfully employed etc.,—are little related to the traditional goal of working single-mindedly up an organizational ladder. The implication is that today's youth are likely to see formal higher education as less relevant to their needs than did their predecessors.

The current higher education system is described as one in which service to the elite has been replaced by service to the masses and in which budgets have grown significantly. This growth has nurtured the development of higher education bureaucracies, which are really not prepared to deal with universal access in a meaningful way. Mood sees a glaring mismatch between what today's students need in terms of a comprehensive relevant education and the collection of unrelated details learned in courses refined according to the special interests of the instructor. In Mood's view, one solution lies in improving educational technology by substituting machines for teachers, Mood believes in the feasibility of a video university that would operate entirely through the medium of video cassettes attached to television sets, thus dispensing entirely with the need for campus and faculty. Mood also claims that our educational system does not prepare its students for the world they must live in, and he predicts that this will change when people are freed from the emphasis on credentials and begin prescribing their own education.

With these anticipated changes in mind, Mood hypothesizes an alternative system of higher education in which the vast majority of students attend college initially on a full-time basis for only 1 year and obtain further education as a part-time activity. This first year would be universal—almost everyone would attend regardless of whether he or she had graduated from high school. The 4 year of full-time attendance would be at a residential college, and the part-time lifelong learning would be more in the domain of the community college.

To advance this concept of future education, Mood sees the need for several courses of action. The video university would be funded by the Federal Government. State support would be overhauled so that grants would be given to both high school graduates and dropouts to equalize their capacity to purchase some form of advanced education. Academic changes would include encouragement of more off-campus learning, elimination of entrance requirements, abandonment of the certification function, and the abolition of faculty tenure.

Forms of this educational approach already exist, but not to the degree envisioned possible by Mood. While his expectations may appear somewhat idealistic to some observers, all share his desire to see higher education get out of the credential business and effectively concentrate on relevant learning.

12:3.0/71

Institutions in Transition: A Profile of Change in Higher Education, Harold L. Hodgkinson, 295 pp. (McGraw-Hill Book Co., New York).

This study for the Carnegie Commission on Higher Education involved an effort to identify and analyze change in higher education. Based on data from the annual higher education directories and a questionnaire sent to some 1,200 institution presidents, the author tries to indicate the primary changes occurring in the 1950's and 1960's. The study also includes five case studies of particular institutions.

There were several major conclusions to the study as of 1970, all based on statistical analysis. The students enrolled in colleges and universities had become more diverse in terms of social and economic background, and student influence on governance issues had increased. At larger institutions, faculty members taught fewer hours, were more interested in research than in teaching, spoke out on issues of national policy, and tended to be less loyal to the institution. The huge increase in enrollments during the 1960's had been accommodated largely by the public sector. The greatest increase in institutions awarding the Ph.D. degree occurred among public institutions. Most higher education by 1970 had become coeducational.

The author concludes that size was an important factor in describing institutional characteristics, that regional considerations and governance arrangements seemed to make little difference in determining institutional change, and that institutional diversity was decreasing rather than increasing. The higher education model was the prestigious research university.

No doubt these findings as of 1970 had substantial validity. A similar profile in 1980 might indicate considerable discontinuity from the trends observed from 1950 to 1970. See *Academic Adaptations: Higher Education Prepares for the 1980s and 1990s,* Verne A. Stadtman (12:3.0/80).

4.0 REFERENCE

4.1 Statistics and Information

12:4.1/A-1

The Condition of Education, Nancy B. Dearman and Valena White Plisko, eds., approx. 300 pp. (National Center for Education Statistics, Washington, D.C.).

This annual report statistically describes the condition of education in the United States and reviews the activities of the National Center for Education Statistics. What makes the volume particularly useful is the abundance of carefully organized selected data and the graphical materials, which effectively convey essential phenomena and trends. Also, most of the data are in ratios or index numbers that give meaning and relevance to usually sterile numbers.

The report is organized to reflect the characteristics of the education system and its relationship to the larger society. The first part describes trends and development affecting education at all levels. Chapter 1 deals with the societal context for describing the condition of education, Chapter 2 covers elementary and secondary education, and Chapter 3 examines postsecondary education. Interest in postsecondary education is described in terms of plans of high school seniors, high school graduates not in school but interested in attending, and reasons cited by freshmen in deciding to go to college. Enrollments are presented by sex, family income, and racial/ethnic group. Institutions are described by student enrollment size and composition of governing boards. Numerous outcomes of education are presented including earned degrees, financial aid received, salaries of recent graduates, and educational attainment level. A number of tables deal with adult and noncollegiate postsecondary education.

In the second part, special topics have been selected for closer analysis. Chapter 4 looks at education personnel, Chapter 5 examines the financing of higher education, and Chapter 6 compares education and labor force participation patterns in the United States with those in other countries. The second part also contains a description of the Center's activities for the current fiscal year.

The informative statistics in this volume should at least provide planners with perspective—if not sharpened insights—into current educational practices.

12:4.1/A-2

Digest of Education Statistics, W. Vance Grant and C. George Lind, approx. 200 pp. (National Center for Education Statistics, Washington, D.C.).

This annual abstract of statistical information covers the broad field of American education from prekindergarten through graduate school. Using numerous sources, the *Digest* contains information on a variety of subjects within the field of education statistics, including the number of schools and colleges, enrollments, teachers, graduates, educational attainment, finances, Federal funds for education, libraries, international education, and research and development.

The volume is divided into six chapters: "All Levels of Education," "Elementary and Secondary Education," "College and University Education," "Adult and Vocational Education," "Federal Programs for Education and Related Activities," and "Special Studies and Statistics Related to American Education." To qualify for inclusion, material must be nationwide in scope and of current interest and value. Data extending as far back as 1870 have been employed in many instances in order to give some historical perspective. The introduction supplements the tabular materials in Chapters I through VI by providing a brief description of current trends in American education.

Chapter II of the volume deals with college and university education and includes sections on enrollment, faculty and other professional staff, institutions, degrees, income, student charges and financial aid, expenditures, property, and land-grant institutions. Together, the tables in this chapter comprise one of the most comprehensive compilations of postsecondary education statistics published.

12:4.1/A-3

A Fact Book on Higher Education, Charles Andersen, ed., approx. 200 pp. (American Council on Education, Washington, D.C.).

This handbook is published four times a year in issues titled: "Demographic and Economic Data;" "Enrollment Data;" "Institutions, Faculty and Staff, Students;" and "Earned Degrees." Data are drawn from a variety of government and private sources and presented in convenient charts and tables that summarize past developments and projections. The most important feature of the series is the emphasis given to statistical revelation and documentation of trends and relationships. In this regard, most of the data are selected to provide meaningful indicators of the phenomena being observed and are reported over an extended time period.

The first issue, which includes over 60 tables and related charts, present demographic and economic data on population, income, business activity, labor force and employment, and higher education finances. The second issue presents enrollment trends by level of student, sex, control and type of institution, region and state, and field of study. The faculty and staff statistics in the third issue include count by sex, control of institution, position, full- and part-time status, highest degree held, and other characteristics. Faculty salaries are presented in a variety of classifications. Student-related statistics in this issue deal with student tuition, characteristics of entering freshmen, residence and migration data, and foreign students and study abroad. Earned degrees are presented in the fourth issue by level of attainment, distribution by field, percent distribution by sex and by control of institution, and other categories.

12:4.1/A-4

Higher Education in the States, Education Commission of the States, approx. 30 pp. (ECS, Denver, Colo.).

Three times a year a pamphlet from this series is issued providing annual information on state higher education activities, legislation, and support of private institutions and students. One issue deals with the states individually, citing problems, activities, achievements, changes, and other events of interest to the postsecondary education community. Such a document is useful to planners wishing to keep abreast of current state events in education.

A second issue is devoted exclusively to reporting new legislation in higher education on a state-by-state basis. A third issue contains an annual tabular survey of programs in operation or approved for state support of private higher education. Programs are briefly identified and funding levels stated for each of six support areas: contracts, direct institutional aid, disadvantaged/minorities, facilities assistance/authorities, medical/dental/nursing, and student assistance. Other periodic issues contain special reports such as a survey of the basic legal structures and responsibilities of state coordinating or governing agencies and other special topics.

12:4.1/A-5

Projections of Education Statistics, Martin M. Frankel and Forrest W. Harrison, approx. 150 pp. (National Center for Education Statistics, Washington, D.C.).

This annual publication provides projections of enrollments, graduates, faculty, expenditures, and student charges for instititions of higher education. The projections assume, primarily, that the trends over the past 11 years in enrollment rates, retention rates, class sizes, and per-student expenditures will continue through the next decade. The population 18 years of age is used for projecting both high school graduates and first-time college enrollment. Preferable, in this reviewer's opinion, would be the more laborious cohort-survival methodology whereby survival rates are projected for successive annual groups of pupils, thus closely relating college enrollments to a more refined known supporting population.

Projections are made, principally by using straight lines fitted by the least squares technique to a ratio (for example, of enrollment to population) as the dependent variable and time in years as the independent variable. This methodology is generally acceptable for determining a long-range trend in data, is the intention of the authors. However, it also frequently results in a degree of discontinuity between last known observations and values for the immediate following projected years. This occurs when the projected trend line fails to coincide with the last known observation and the projection must be "relocated." Early projected values may thus be subject to greater deviation from the long-range trend than later values, and should be used with this understanding in mind.

The National Center for Education Statistics employs the Consumer Price Index (CPI) to establish "constant-dollar" values. The CPI, designed to price a market basket of goods and services purchased by general consumers, has little relevance to the purchases of college and universities, which are primarily faculty, nonprofessionals, and contracted services. Consequently, the validity of projected dollar amounts so adjusted depends on the degree to which the CPI happens to reflect inflation in the education industry. Fortunately, recent trends in the CPI and the Higher Education Price Index (designed specifically to measure inflation in current operations of colleges and universities) have been similar, although individual yearly values differ markedly.

12:4.1/A-6

Rankings of the States, Richard J. Nuanes, approx. 60 pp. (National Education Association, Washington, D.C.).

This annual report provides 128 ranked lists of state data organized in nine sections: population, enrollment and attendance, faculty, general financial resources, governmental revenue, school revenue, governmental expenditures and debt, school expenditures, and miscellaneous. Although oriented toward elementary-secondary education, a substantial number of measures deal directly with higher education. The general demographic and economic data, particularly government finances, also are of value to planners at the postsecondary level.

12:4.1/A-7

State Postsecondary Education Profiles Handbook, Nancy M. Berve, ed., approx 260 pp. (Education Commission of the States, Denver, Colo.).

This annual handbook presents information about postsecondary education in the 50 states and the District of Columbia. Information about each state is organized into four main parts as follows.

Part I includes a narrative description of the state-level coordinating or governing agency, institutional governing boards, current master planning activities, the 1202 Commission, state student assistance agency or agencies, the state board of vocational education, the state-level organization for private colleges, and the state licensure or approval agencies. Additionally, three descriptions are included for certain groups as they apply to some states—voluntary or statutory committees for articulation between elementary-secondary and postsecondary education, nongovernmental organizations whose membership includes both public and private instititions, and statutory advisory committees or task forces.

Part II includes descriptive statistics on state population and trends, state and local financial base, state and local govermental spending, state and local spending on higher education, student demand for public higher education, institutional program mix, faculty support and load, diversity of postsecondary funding sources, and student tuition and fees.

Part III includes a section listing the annual and biennial reports published by state agencies available for distribution. Another section contains recently published special reports and studies, along with the title, publication date, availability, the agency requesting and completing the report, and major issues covered.

Part IV lists special reports and studies currently underway or being planned.

12:4.1/A-8

Standard Education Almanac, B.J. Chandler, consulting ed., approx. 600 pp. (Marquis Who's Who, Chicago).

This reference presents a collection of the latest available reports, charts, graphs, and articles from a variety of sources on the social, economic, and legislative trends affecting all levels of education in the United States and Canada. It covers enrollment trends, degrees awarded, revenues and expenditures, profiles of student and instructional/administrative staffs, minority achievement, correlations between employment and educational attainment, and the like.

The higher education section numbers 125 pages and includes enrollment projections, college admissions, enrollment of foreign students, Catholic higher education, college student profiles, instructional staff, faculty salaries, tenured faculty, salaries of administrators, institutional revenues and expenditures, college costs, student financial aid, Canadian higher education, and other data of this type.

The other sections of the volume—elementary and secondary education, issues in education, related statistics, and sources of additional information—contain substantial data and information relevant to higher education, including social indicators of equality, test use and validity, demographics of the 1980's, educational expectations and college attrition, bilingual vocational education, and the like.

12:4.1/80

U.S. Higher Education: A Guide to Information Sources, Franklin Parker, ed., 675 pp. (Gale Research Co., Detroit).

This volume is an omnibus bibliography of over 3,000 entries devoted to higher education in the United States. Books and reports are cited in virtually all areas of higher education including history, philosophy, administration, finance, governance, curriculum, student life, library and audiovisual services, custodial concerns, women, minorities, students, faculty, and the various components of Federal, state, and local relations. The bibliography is comprehensive with respect to 20th century works and includes a generous selection of the most important 19th century publications.

The large number of specific subjects and topics covered precludes an organized subject arrangement. Rather, entries are listed in alphabetical order by author. However, a detailed 75-page subject index is of considerable assistance in locating specific topics. An author index is also provided.

The annotations, while usually only one or two sentences in length, are carefully prepared and of substantial aid in conveying content.

4.2 Bibliography

12:4.2/S

Educational Resources Information Center

The Educational Resources Information Center (ERIC), sponsored by the National Institute of Education, is a nationwide network of clearinghouses and other contractors designed to develop a bibliographic data base covering the English-language literature of education. The emphasis is on the fugitive literature (technical reports, curriculum materials, project descriptions, etc.) and on journal articles.

The 16 ERIC clearinghouses are each responsible for a specialized segment of the entire field, e.g., Career Education, Higher Education, Junior Colleges, Teacher Education, etc. Each clearinghouse collects documents and catalogs, indexes, and abstracts them for inclusion in the machine-readable data base. The clearinghouses also produce syntheses of the literature known as Information Analysis Products, and assist users in retrieving needed information from the data base.

The ERIC Processing and Reference Facility is responsible for editing the work of the clearinghouses, constructing the machine-readable data base, photocopying a monthly abstract journal, and providing the data base on magnetic tape to interested users.

The ERIC Document Reproduction Service (EDRS, P.O. Box 190, Arlington, VA 22210) is responsible for preparing microfiche of all documents in the system that are released by their authors for reproduction (about 90 percent of the total). EDRS provides a subscription service for ERIC microfiche, and processes on-demand orders for microfiche and paper copy.

The two principal products of the ERIC system are abstract journals (cited below): *Resources in Education* (RIE) and *Current Index to Journals in Education* (CIJE). Secondary products are the *Thesaurus of ERIC Descriptors* (the indexing vocabulary), the microfiche collection, the magnetic tapes, and various subsidiary publications such as the *Title Index*, *Contract Number Index*, and *Report Number Index*.

The ERIC data base is retrievable via three major on-line vendors: Lockheed, SDC, and BRS. The ERIC microfiche collections exist at some 700 locations, both domestic and foreign, and computer searches of ERIC are available at several hundred locations. The ERIC system is the pre-eminent bibliographic data base in the field of education.

Resources in Education (RIE), Educational Resources Information Center, approx. 400 pp. (ERIC, Washington, D.C.).

RIE is a monthly abstract journal announcing recently completed research reports, descriptions of programs, and other documents of educational significance indexed by subject, author, and institutional source. Abstracts are limited to 200 words. Entries are made once and not repeated in subsequent issues. Periodical literature is not included (see entry below). Cumulative, semiannual indexes are available.

Current Index to Journals in Education (CIJE), Educational Resources Information Center, approx. 300 pp. (ERIC, Washington, D.C.).

CIJE is a monthly guide to the periodical literature, with coverage of more than 700 major educational and education-related publications. It includes a main entry section with annotations, and is indexed by subject, author, and journal title. An annual cumulative index is available.

12:4.2/81-1

Higher Education: A Bibliographic Handbook, D. Kent Halstead, ed., 1,400 pp. (National Institute of Education, Washington, D.C.).

Earlier works by Lewis Mayhew, Roger Kelsey, and others provided yearly bibliographic coverage of higher education literature, but these have been discontinued. This two-volume handbook begins a series that is intended to fill this void. The initial editions cover the 1970 decade, with subsequent additions tentatively planned every 2½ years.

The subject—higher education—is broadly defined to include the activities of colleges and universities; the organization and programs of institutions, together with the public and government roles; the resources employed; and the corporate knowledge developed through experience and study of education by the different disciplines.

Entries have been carefully screened and are recommended by experts for their substance and distinctive contribution. The experts, serving as associate editors in their field of specialization, are well-known scholars and practitioners recognized for their competence. Also adding value to the bibliography are the complete annotations, which assist the reader in identifying content most likely to meet his or her specific needs.

The two volumes cover 38 topic areas, with various subdivisions. The first volume contains topics generally studied in an aggregate universe or collective whole at the state or national level—a macro approach. The second volume includes topics typically studied in the context and from the perspective of the individual institution or campus—a micro approach.

The associate editors provide an introductory description of their topics and an outline of subtopics. For both volumes, the number of subtopics totals 243, providing a surprisingly high degree of classification detail.

The topics covered in Volume I are: comparative national systems; demography; economics; educational opportunity; finance; governance and coordination; history; independent (private) higher education; institutional role and mission; management—quantitative approaches; philosophy; policy, planning, and general reference; productivity and cost-benefit analysis; research and research administration; resource allocation and budgeting; student characteristics and development; student financial assistance; and work and education.

The topics covered in Volume II are: admission/articulation/retention; business administration; campus and building planning; community colleges; computing services; curriculum; educational communication and technology; faculty; health science education; institutional advancement (public affairs); institutional financing and budgeting; institutional management; institutional planning, studies, and analyses; leadership and the presidency; libraries; lifelong learning; private career schools (proprietary education); space management and projection; student affairs; and teaching and learning.

An author index and a title index are presented.

12:4.2/81-2

Higher Education Periodicals: A Directory, Thomas Dyer and Margaret Davis, 148 pp. (Institute of Higher Education, University of Georgia, Athens).

This volume is an annotated directory (bibliography) to 269 periodicals that regularly publish articles and other items of interest to higher education administrators, professors, graduate students, and others interested in the scholarly or professional literature of the field. The "periodicals" listed embrace a variety of publications, including scholarly and professional journals, newsletters of professional associations, magazines, and other serials that focus on higher education topics.

Information about individual periodicals is arranged under seven principal headings: title, sponsoring agencies and publishers, editors and their addresses, brief description of journal's distinguishing characteristics, subscription prices and addresses, circulation, and policies with respect to publication of manuscripts (indicating whether unsolicited manuscripts are accepted, guidelines concerning preferred style and manuscript length, and the number of copies required).

12:4.2/80

Index to Anthologies on Postsecondary Education, 1960-1978, Richard H. Quay, 342 pp. (Greenwood Press, Westport, Conn.).

Quay has performed a valuable and unique bibliographic service in preparing this index of anthologies. It is valuable in that the individual essays and articles have been freed from their respective anthological homes and are reorganized in a more functional manner and available for individual scrutiny. It is unique in that this approach is rarely encountered.

The 218 anthologies included cover the 1960-1978 period and collectively contain over 3,600 articles and essays on a wide spectrum of educational issues. The essays are arranged under 31 topic headings, ranging from "Admissions, Access, and Accreditation" to the "Politics of Postsecondary Education." The "Faculty" chapter, for example, lists 323 entries from 64 anthologies. The depth and importance of the reorganization function thus becomes clear.

More than 80 percent of these articles were original contributions to the anthologies in which they appeared and therefore are not readily identifiable through standard bibliographic sources. With few exceptions, they can be independently identified only in this *Index*. In addition to the main entries arranged topically, the *Index* lists each piece by author and subject to assist in locating specific works.

12:4.2/79

A Guide to Reference Sources in Higher Education, Peter P. Olevnik, 45 pp. (State University of New York, Buffalo).

This volume is a comprehensive, annotated bibliography of 81 general and special reference sources related to the field of higher education. Entries are arranged by source type: bibliographies of bibliography; bibliographies (special); bibliographies (general); biographical dictionaries; encyclopedias; guides and handbooks; indexes to periodicals; law; microforms; state government publications; statistics; and U.S. Government publications. Among the topics included in the category of bibliographies (special) are: administration; affirmative action; comparative higher education; finance; history; minorities; student activism; teaching; and planning. An author index and a title index are included.
Bibliographic Guide to the Research Literature by Anne Hastings (ERIC Clearinghouse on Educational Management, University of Oregon, 302 pp.), which was published subsequent to and is therefore not listed in the 1979 edition of the *Guide*. The more recent work covers books and monographs published from 1960 through 1979. Entries are classified according to subject matter into eight major sections and 47 subcategories. An author index and a subject index are provided. An appendix lists and describes the major indexing sources of public documents.

12:4.2/76

Research in Higher Education: A Guide to Source Bibliographies, Richard H. Quay, 54 pp. (College Entrance Examination Board, New York).

More than 500 references are contained in this three-part book. Part I is an alphabetic listing of bibliographies, reviews of literature, and research items in educational journals. Part II provides subject access to the listings through an inventory classification scheme. Part III is a topical index.

Although entries cover the period from 1917 to 1975, over half the citations were published in the 1970's. Annotations are not provided. Bibliographic items available from the Educational Resources Information Center (ERIC) have been identified by including the ERIC document number.

12:4.2/73

The Small College: A Bibliographic Handbook, Thomas A. Askew, 135 pp. (Council for the Advancement of Small Colleges, Washington, D.C.).

This annotated bibliography contains selected research, available from 1956 through 1971, specifically devoted to small colleges. Although dated, the work is included here because of its specialized study of small colleges (defined as a college with fewer than 2,500 full-time students) and because of the general exiguous number of bibliographies in higher education that warrant attention toward and promulgation of those few that do exist. The Council for the Advancement of Small Colleges has no current plans to update this bibliography.

For the benefit of the readers, separate author and subject indexes are provided. The subject index contains key words that appear in the annotation and is followed by the appropriate bibliographic entry number. Each annotation is two to three sentences. The bibliography is divided into 12 subject areas, as follows: general studies on the small college; curriculum and philosophy of education; pedagogy, teaching, and learning; libraries and learning resources; faculty; students; governance; administration; finance, budgeting and development; long-range planning; physical facilities; and interinstitutional cooperation and consortia.

4.3 Directory

12:4.3/A-1

Directory of Professional Personnel, Education Commission of the States, approx. 90 pp. (ECS, Denver, Colo.).

This annual directory provides names, addresses, and phone numbers of statewide agencies in each state, together with names and titles of principal staff members. Also included are: the Southern Regional Education Board, the New England Board of Higher Education, and the Western Interstate Commission for Higher Education—together with the National Center for Higher Education Management Systems and planning agencies in the Canadian provinces.

12:4.3/A-2

Education Directory: Colleges and Universities, Carolyn R. Smith and Geneva C. Davis, approx. 530 pp. (National Center for Education Statistics, Washington, D.C.).

This book lists institutions in the United States and its outlying areas that offer at least a 2-year program of college-level studies and, in most instances, are accredited by a nationally recognized accrediting agency or approved by a state department of education or state university. The information presented for each institution includes its telephone number, address, congressional district and county in which it is located, Federal Interagency Committee on Education (FICE) identification code, date established, fall enrollment, undergraduate tuition and fees, sex of student body, calendar system, control or affiliation, highest level of offering, type of program, accreditation, names and titles of principal officers, and a coded classification of principal officers by functional area of responsibility.

4.4 Data and Information Sources and Services

12:4.4/S-1

EDSTAT II

EDSTAT II is a national on-line education data retrieval system operated by the Division of Statistical Services, National Center for Education Statistics. Users anywhere in the continental United States can query the extensive data bank of education statistics through standard keyboardtype computer terminals, using the facilities of a national commercial time-sharing service sponsored by the General Services Administration. EDSTAT data files have been prepared for use with an information management and retrieval software package, permitting many users to simultaneously query the same data base. In addition, EDSTAT data files are available in Fortran-compatible form to permit user to develop educational models and perform statistical analysis using existing software packages (e.g., SPSS, Statistical Package for the Social Sciences).

EDSTAT data are stored both on-line and on magnetic tape. Frequently used data are immediately available to users. Other data require delays of a few minutes to a few hours (depending upon the size of the data file) before they can be interactively acquired by the user. Costs of using EDSTAT vary according to requirements and usage. The user bears all telephone and data processing charges for his use. All EDSTAT data base preparation and storage costs are incurred by NCES.

The scope of EDSTAT data holdings is essentially limited to United States Government statistics, primarily those collected by NCES. To date, EDSTAT has placed emphasis on developing postsecondary education data resources (e.g., HEGIS) for public access, but there are increasing numbers of requests for other types of education data—vocational, elementary/secondary—and EDSTAT is actively seeking to address these data needs.

12:4.4/S-2

NCHEMS Database Holding and Services

The National Center for Higher Education Management Systems (NCHEMS) database holdings include data from such organizations as the National Center for Education Statistics the Census Bureau, the National Science Foundation, and the Center for Human Resources. Institutions and states are predominant units of analysis in the database. The subject matter includes enrollments, earned degrees conferred, employees of higher education, institutional characteristics, state-level finances, institutional finances, and general population demographics and other statistics of individual states. Several data files are compilations of data from a large number of sources. These data were created primarily for particular research and data analysis projects, and represent a rich set of data that can be used by other individuals for postsecondary education research and planning.

In addition to comprehensive database holdings, NCHEMS access to a number of data management and analysis packages is provided. These include: MARK IV; the Bureau of Labor Statistics Table Producing Language (TPL), Biomedical Computer Programs (BMCP), Statistical Package for the Social Sciences (SPSS), Statistical Analysis System (SAS), MINI-TAB; and OSIRIA. These packages provide the capability for reorganizing, combining, and reformatting data files, and the capability for extensive and sophisticated statistical analysis of the data.

An IBM 360/195 located at the United Airlines Computing Center in Denver is used. A remote job entry facility, located at NCHEMS in Boulder, Colorado, is used to communicate with the system at UAL. Nine-track, 800-bpi, 1600-bpi, and 6250-bpi tape drives are available. This capability is supplemented by the academic computing center at the University of Colorado. Hardware facilities there include dual CDC 6400's and 7- and 9-track 800/1600-bpi tape drives.

12:4.4/S-3

National Center for Education Statistics Catalogue of Publications, National Center for Education Statistics, approx. 15 pp. (NCES, Washington, D.C.).

This catalog lists a variety of publications available from NCES, the Department of Education agency that collects and disseminates statistics and other data related to education in the United States. The Center publishes "early releases" of preliminary and selected statistics, "bulletins" announcing limited data of special importance, and general statistic studies, most notably the *Digest of Education Statistics, Statistics of Trends in Education*, and the *Condition of Education*, annotated separately in this section.

In postsecondary education, publications present statistics on a wide range of topics such as earned degrees conferred, black institutions, fall enrollment, institutional finances, women in vocational education, migration of students, inventory of physical facilities, library statistics, college graduates, adult basic and secondary programs, Federal policy data needs, and various national longitudinal studies. The Center also publishes "directories" of colleges and universities and of state education agency officials.

12:4.4/76

A Guide to Sources of Educational Information, Marda L. Woodbury. 371 pp. (Information Resources Press, Washington, D.C.).

This reference is a guide to the following types of information sources: (1) printed materials that consolidate, keep current, or lead to further sources of information; (2) education libraries or information centers; (3) organizations and government agencies active or knowledgeable in education-related fields; and (4) special search or bibliographic services.

Elementary and secondary education are more comprehensively covered than postsecondary education. The descriptions provide the user with a clear means of tapping the potential source and a general description of the type of information available.

12:4.4/75

A Reference Guide to Postsecondary Education Data Sources, Katherine A. Allman, 292 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This reference is the only guide directed exclusively to identifying data sources useful to postsecondary education planning. It describes publications, articles and data bases related to most of the items of information identified in the NCHEMS *Statewide Measures Inventory* (10:2.1/75). For the various references, information is provided on how the data are organized, the kinds of information given, the level of aggregation, the years for which data are available, and those measures in the *Statewide Measures Inventory* that correspond to the data referenced.

12:4.4/74

Directory of Educational Statistics: A Guide to Sources, Malcolm C. Hamilton, 71 pp. (Pierian Press, Ann Arbor, Mich.).

This directory guides readers to sources of educational statistics, both current and historical, on a wide range of topics. The publication history of each series is described on a year-by-year basis. The descriptions for the statistical entries are general and insufficient to determine the data's compatibility with other elements. A helpful improvement would be more detailed description of the series to include format of presentation, coding employed, and levels of aggregation.

13

Productivity and Cost-Benefit Analysis

Wayne R. Kirschling

The most common conceptual model of productivity is based on the relationships between inputs (factors of production), processes (production technologies), and outputs (products or goods and services). A distinction is usually made between effectiveness and efficiency. Effectiveness involves producing the "right" outputs in response to the demand for certain goods and services, the expectations of financiers, and the goals and objectives of the producing unit. Efficiency entails producing outputs using the least costly combination of inputs and processes.

The distinction is sometimes made between mechanical models of productivity (e.g., the input-process-output model) and behavioral models. The behavioral model considers such concepts as incentives for and constraints on individual and collective behaviors, and the correlation of interpersonal relationships (e.g., peer groups among students, and the community of scholars among faculty). These two types of models are not opposed; rather, they provide important, complementary perspectives on higher education productivity. The mechanical model provides important data on how inputs and processes affect outputs, the kind of information often needed for state and Federal planning. The behavioral model helps explain why higher education cannot be considered in purely mechanical or "black box" terms. Unless human behavior is taken into account when introducing operational changes, little real improvement is likely to be accomplished.

The entries in this topic are meant to increase awareness and understanding of productivity and thus help planners maintain and improve higher education productivity in terms of reduced costs and improved outcomes. The entries within the following subtopics are divided according to whether they: (1) report empirical findings, (2) suggest means for improving productivity, or (3) describe and discuss appropriate methodology.

Outcomes. Outcome considerations are part of the planning process, for goals developed during planning can be viewed as intended outcomes. Because the goals of education are considered under several other topics (see Topic 9: Institutional Role and Mission, and Topic 12: Policy and General Reference), the primary, but not exclusive, emphasis here is on entries that concentrate either on how goals can be translated into measurable outcomes, or on how actual outcomes compare with previously developed goals. Entries in this subtopic consider such outcomes as student achievement, faculty productivity, and degrees awarded. Other entries cover ways to assess needs and build outcome considerations into higher education management. An effort has been made to emphasize entries that reflect a comprehensive view of broad individual and social outcomes without delving into specialized interest groups.

Costs. If outcomes can be described as a pivotal factor in planning, costs are an inevitable factors. Costs are studied primarily from an institutional standpoint—ways to use resources more efficiently, ways to reduce expenditures, and ways to achieve low-cost instruction. This cost analysis involves all types of costs: total, fixed, variable marginal, and average. (Student costs are covered in Topic 17: Student Financial Assistance; the question of underwriting costs and how this can be accomplished is covered in Topic 5: Finance. Other theoretical and macroeconomic concerns of higher education are considered in Topic 3: Economics).

Cost/Outcome Relationships. In some ways the analyses of costs and outcomes are becoming specialized in higher education. Outcomes are largely the concern of academicians, faculty, and department heads; costs, of accountant and financial managers. Often these two two interests come together only at the chief executive or board of regent level. This division is seemingly unsupportive of productivity (at least in theory and probably in practice); yet it is only when costs and outcomes are analyzed in combination that productivity studies can realize their full potential. In higher education, planned outcomes need to be adequately supported. Financing, in turn, needs the direction provided by clear and agreed-upon goals and objectives. This subtopic addresses the link between costs and outcomes.

The cost of programs and their final impact are both required to measure productivity. This dual measurement requirement should be of major concern to planners, for inadequate productivity studies can damage the substance of higher education, just as complete studies can enhance it. The entries chosen here are intended to encourage productivity analyses that are complete and beneficial.

TOPIC ORGANIZATION

13: Productivity and Cost-Benefit Analysis

- **1.0** Outcomes
  - **1.1** Empirical Studies
  - **1.2** Recommendations
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1.0 OUTCOMES

1.1 Empirical Studies

13:1.1/77-1

"The Effects of Academic Departments on Student Learning," Rodney T. Hartnett and John A. Centra, *The Journal of Higher Education*, September/October, pp. 491-507.

This study is a key addition to the literature dealing with college effects on student outcomes. Most of the earlier research on college effects focused on the impacts of different college environments; hence, the unit of analysis in these studies was the institution. In this study, the focus is on the "effects of academic departments on student achievement as assessed by standard measures of knowledge within selected subject areas." Departments from four fields—biology, business, mathematics and psychology—are studied. The criteria are the average scores of students from each department on the advanced tests of the Graduate Record Examinations (GRE) and on the field tests of the Undergraduate Program (UP) of the Educational Testing Service. Information on departmental characteristics was gathered by a survey of departmental chairmen.

These specific questions are addressed. Are there substantial difference between departments within an institution as regards their effects on student learning? Are there differences in student learning effects among subdiscipline specialties within the same department? Are there departmental characteristics that correlate with the student learning effects of departments? The finds of the study with regard to each of these questions, respectively, are that: (1) "There does appear to be evidence of frequent educational effect differences between departments within the same institution; (2) "There was very little diversity [in educational effects] between subfields with departments"; and (3) "Analysis of various characteristics of departments failed to identify any features consistently associated with indexes of effectiveness."

This important study's major limitation, which it shares with many other studies in this area, is that it looks at a single outcome—in this case, student achievement based on standard measures. The analytical methodology it employs (regression analysis)is suited to the study of a single outcome but not of the multiple outcomes that characterize most academic departments. This limitation does not detract from the study's major finding, that there are important differences in student learning at the departmental level.

13:1.1/77-2

"Productivity Ratings of Graduate Programs in Psychology Based on Publications in the Journals of the American Psychological Association," W. Miles Cox and Viola Catt, *American Psychologist*, October, pp. 793-813.

This article provides objective indexes of *quality* for graduate programs in psychology, with quality being measured by the *quantity* of publications in 13 journals of the American Pschological Association. These journals were chosen for their selectivity (as evidenced by their rejection rates) and their prestige among psychologists. The number of articles associated with each of the 76 most productive colleges and universities are reported for each 2-year period from 1970 through 1975. Separate tables for each of the 13 journals are presented, as well as a table that ranks programs on their overall productivity per faculty member.

The authors compare their methodology and results with those of a 1970 Roose and Andersen study, criticizing the Roose and Andersen study and its predecessor (Cartter, 1966): ". . . they were based on no objective indexes of quality but merely upon the 'reputation' of the raters . . . . [furthermore] these ratings provide only a global view of faculties as a whole [and] they obscure strengths and weaknesses of programs in particular areas of psychology." The authors note considerable differences in results between this study and the Roose and Andersen study, and they observe possible biases in the Roose and Andersen study against programs stressing applied psychology, against newer programs, and against smaller programs.

The study provides a number of interesting findings about journal publication productivity. For example, the productivity of the 76 most productive programs rose only 1.0 percent during the 6-year period; few programs were found to be equally productive in all areas of psychology; and in an aggregate sense, there were wide variations in productivity even among the most productive programs.

While limited to psychology, this study is important because of the comparisons it draws with the Roose and Andersen study, which applies to graduate programs in all disciplines. Further, it provides a concrete example of how journal publication productivity can be studied. It recognizes a number of limitations, including the need to account for the production of books and the possibility that "the quality of instruction that a graduate student receives is inversely related to the prolificacy of his or her professors." Its major weakness is that it attempts to use a measure of quantity as a proxy for a measure of quality. This equation is done to facilitate the comparison with the Roose and Andersen quality rankings. The comparison is misleading because different attributes are being measured.

13:1.1/76

Studies of Productivity in Knowledge Production and Utilization by Schools, Colleges, and Departments of Education, David L. Clark and Egon G. Guba, 60 pp. (Indiana University, Bloomington).

This volume reports the findings of a study of knowledge production and utilization (KPU) activities in 1,367 schools, colleges, and departments of education (SCDE's). The study involved seven separate analyses that examined: "(1) publications in educational journals, (2) documents stored in the Resources in Education (RIE) file of Educational Resources Information Center (ERIC), (3) published books in education, (4) presentations at national conventions of educational associations, (5) KPU projects in education funded by private foundations, (6) KPU projects in education funded by other agencies, and (7) the institutional source of terminal degrees of faculty of SCDE's."

The authors do not report results for individual SCDE's, but suggest that these data are available upon request. The 1,367 SCDE's studied are broken down into 12 categories on the basis of three factors: degree level offered in education (doctoral, master's, baccalaureate); institutional control (public private), and likely involvement in educational KPU (more likely, less likely).

The authors found that doctoral-granting universities, whether publicly or privately controlled, rank highest in all areas studied in both total and per faculty member output. They also look at which types of SCDE's are high producers and approximately 40 percent of the 153 doctoral institutions are either middle, low, or nonproducers in this classification scheme. Finally, they compare the educational output of SCDE's to the output of other college and university agencies (e.g., departments of economics and business) and agencies outside colleges and universities (e.g., state departments of education, U.S. Government agencies) and report that SCDE's account for approximately 40 percent of the output in the various areas studied. This ranges from a low of approximately 6 percent of the ERIC citations to over 55 percent of the journal citations.

This study is important for two reasons. First, it utilizes a number of varied measures of research and development output. Second, it deals with schools, colleges, and departments of education. Given the projections of excess teacher supply, support for these SCDE's is and will continue to be closely examined. The data assembled for this study and the resultant findings provide valuable insights for these examinations.

13:1.1/70

A Rating of Graduate Programs, Kenneth D. Roose and Charles J. Andersen, 115 pp. (American Council on Education, Washington, D.C.).

This volume reports on the replication of an American Council on Education study conducted in 1964 by Allan Cartter. Cartter's study involved 4,000 faculty members at 106 institutions and looked at 30 disciplines. This study involved 6,000 respondents at 130 institutions and covered 36 disciplines.

Senior scholars, department chairmen, and junior scholars were asked to provide peer ratings in three areas: the quality of the graduate faculty; the effectiveness of the doctoral program; and recent change in the quality of graduate education. Faculty rating were on a six-point scale ranging from "not sufficient for doctoral training" to "distinguished." Programs were rated on a four-point scale from "not attractive" to "extremely attractive." Change was rated on a four-point scale from "worse than 5 years ago" to "better than 5 years ago."

Results are provided by institution for each discipline. The leading institutions are ranked; all other institutions are placed within appropriate groups based on their scores, but they are not ranked within that group. For the leading institutions, comparisons are made wherever possible to the 1964 Cartter rankings and to the rankings arising out of a similar 1957 study.

The authors point out several policy implications of their study. The first of these is that improvement in graduate education should not be stressed at the expense of improvements in undergraduate education. Another recommendation revolves around "the apparent duplication of program resources, particularly by the public institutions within a state." The authors feel that "A hard look must be taken at programs which fall below desired standards, with a view toward either shaping up or eliminating them." Additionally, the authors feel that, "From the standpoint of national policy, consideration must be given to the possibility that in the future a more than sufficient supply of Ph.D.'s for most traditional uses can be trained in the graduate programs of, say, 50 or so top-rated institutions."

This study is the latest reasonably comprehensive rating of graduate programs. Although the results of this study are both controversial (mostly because they are based solely on subjective opinions) and outdated, they continue to be used as the best alternative in studies of graduate education.

See also: Topic 16: Student Characteristic and Development; Topic 14: Research and Research Administration; and Topic 3: Economics, Subtopic 4.0—Econmics Impact of Higher Education on Students.

24:1.1/77-1 *Four Critical Years: Effects of College on Beliefs, Attitudes, and Knowledge*, Alexander W. Astin.

24:1.1/77-2 *Investment in Learning: The Individual and Social Value of American Higher Education*, Howard R. Bowen.

1.2 Recommendations

13:1.2/79

Evaluating Educational Quality: A Conference Summary, Alexander W. Astin, Howard R. Bowen, and Charles M. Chambers, 35 pp. (Council on Postsecondary Accreditation, Washington, D.C.)

This occasional paper, an outcome of a 1978 conference on accreditation whose theme was "Evaluating Educational Quality," consists of three conference products: A keynote address by Alexander Astin, a discussion paper by Howard Bowen, and a conference synthesis by Charles Chambers.

Astin's contribution, "Student-Oriented Management: A Proposal for Change," calls for scrapping "research-oriented management systems" and replacing them with "systems that are primarily student-oriented." He points out that, "While college administrators typically have access to fiscal data . . . they lack regular feedback on the educational development and progress of their students." To make it possible for administrators to choose among alternative ways of affecting student outcomes, he proposes a theory of student development that emphasizes student involvement. He then goes on to review the various ways in which student involvement can be increased to good effect on learning and development.

Astin goes beyond mere exhortation. He proposes specific steps and provides reasoned advice on how to implement his recommendations. For example, he counsels that survey results should be shared in a climate that helps "academic departments and administrative service units (financial aids, etc.) learn more about how they affect students," and that avoids their use "as a basis for rewarding good performance and punishing bad performance. . . ." In another example, he illustrates how student time studies might be constructed and used.

Bowen's topic is "Goals, Outcomes, and Academic Evaluation," and, like Astin, he stresses the link between outcomes and management. Noting the paucity of "systematic on-going efforts to assess outcomes, and certainly few cases where the study of outcomes has been linked to management," he questions whether the alternative bases for decisionmaking—tradition, expediency, fad, and intuition—are acceptable. As an aid to incorporating outcomes into the management of colleges, he suggests seven basic principles and identifies a series of practical issues in the assessment of outcomes.

Chambers' conference synthesis focuses on how the accreditation process might be altered to encourage institutions to practice outcome-oriented management. Specifically, he describes a strategy by which an institution might be encouraged to use its accreditation self-study as a foundation for future planning. This strategy produces what he terms a "futuristic definition of accreditation": "An institution or program is accredited if it: (1) can demonstrate that it can accurately assess its own potential relative to the evaluative criteria of the accrediting agency; (2) that it can use this information to design and implement a plan to achieve its potential; and (3) that the accrediting agency can validate this plan and its success through peer review."

Collectively, these three articles present useful suggestions on how college management might be reoriented to focus on outcomes, particularly student-related outcomes. To this end, they suggest ways in which this transformation can be encouraged both by external groups, such as accreditation teams, and by revisions of management priorities, styles, and procedures.

13:1.2/76
Improving Education Outcome, New Directions for Higher Education, No. 16, Oscar T. Lenning, ed., 105 pp. (Jossey-Bass, San Francisco).

This sourcebook consists of five articles. Leonard L. Baird writes of "ways that educators can improve the campus environment to promote student learning, with special attention on collecting the facts before trying possible remedies." H.D. Schalock reviews "evidence about the effectiveness of old as well as new approaches to instruction" and provides "a preview of likely approaches in the future." William Moore, Jr., describes "techniques for increasing the learning of poorly-prepared students, including changes in administrative and faculty attitudes." Ernest G. Palola and Timothy Lehmann relate their experience with the Program Effectiveness and Related Cost (PERC) system in use at Empire State College and describe how it "is contributing to informed decision about educational outcomes." Finally, Lenning comments on "the evidence regarding improved learning and about the role of research and evaluation in further improvements."

Extensive references at the end of each chapter make this sourcebook very useful. In addition, Lenning provides a guide to helpful literature in four areas: attrition/retention; developmental outcomes; innovation/instruction; and student characteristics. This sourcebook is the only major work on improving higher education learning outcomes that covers a broad range of approaches. Almost all the other literature in this area either emphasizes methodology, reports findings, or focuses on one particular improvement strategy.

See also: Topic 9, Institutional Role and Mission.

1.3 Methodology

13:1.3/80-1
"Appraising Institutional Performance," Richard I. Miller, pp. 406-431 in *Improving Academic Management: A Handbook of Planning and Institutional Research,* Paul Jedamus, Marvin W. Peterson, and Associates. (Jossey-Bass, San Francisco).

This review of the literature is directed towards answering the question, "What aspects of the academic enterprise can provide a useful measure for institutional quality?" Seven elements are identified as "often involved in institutional evaluation, whether it be impressionistic or systematic." These seven elements are: student outcomes; administrative leadership; constituent perceptions; community impact; fiscal indicators; state-level boards; and Federal agencies. The author states that evidence collected from each of these areas "should provide substantive impediments to those who want to over-simplify the appraisal of institutional quality, using one or two elements.

For each of these seven elements, the author identifies extant methodologies by which information on institutional performance (quality) might be gathered. However, this identification is uneven. For example, the discussions of "student outcomes" and "community impact" provide specific references to useful methodologies, whereas the discussions of "administrative leadership," "fiscal indicators," "state-level boards," and "Federal agencies" provide few such references. Another weakness is tha the author makes performance equivalent to quality. Yet institutional performance involves both quantity and quality considerations. Some methodologies for measuring institutional performance consider quantity and quality as separate factors; others consider them as inextricably interwoven. But in each case, both elements of performance are recognized.

In addition to discussing each of the seven possible elements of institutional performance, the author identifies and discusses quite thoroughly five approaches to institutional evaluation: educational auditing; external consultant studies; self-studies for accreditation; self-studies for other purposes; and state Federal reviews. Unfortunately, he does not compare and contrast these approaches in terms of factors such as inherent biases, costs, and benefits.

In summary, this survey is recommend because of both its broad coverage of various institutional performance methodologies and its currency. Moreover, it provides a useful list of references to other publications, including the author's own book, *The Assessment of College Performance*.

13:1.3/80-2

A Question of Quality: The Higher Education Rating Game, Judith K. Lawrence and Kenneth C. Green, 68 pp. (American Association for Highere Education, Washington, D.C.)

This research report is the most extensive and usefully structured review currently available of the literature on the measurement of higher education quality. A bibliography of over 200 entries supports the review in five areas: reputational studies of graduate education; assessments of professional program quality; quantifiable indicators of quality; quality assessment at the undergraduate level; and other dimensions and concerns in quality assessment.

After providing a thorough review of graduate-level reputation studies, beginning with the 1925 study by Raymond Hughes, the authors note that these studies have had unfortunate, though unintended, consequences: namely that "research and scholarly productivity are emphasized to the exclusion of teaching effectiveness, community service, and other possible functions, undergraduate education is denigrated; and the vast number of institutions lower down in the pyramid are treated as mediocrities, whatever their actual strengths and weaknesses." The authors also state that assessments of professional programs have been dominated by the "peer-rating, reputational approach to quality" and that studies of professional schools tend to identify the same institutions as being at the top.

The chapter on quantifiable indicators addresses quantifiable indicators found to be correlates of prestige, scholarly productivity of faculty, and other quantitfiable factors such as faculty degrees and awards, student quality, institutional resources, and client satisfaction. The authors found that, "the list of quantifiable measures of human and material resources that correlate with reputation prestige is enormous," and because of this, any further such correlation efforts "would be a waste of time." Their examination of scholarly productivity efforts uncovered many complications, e.g., the confusion of quantity with quality, and existence of important differences among disciplines. Their review of quality assessment at the undergraduate level led to several observations, including the facts that there have been "relatively few comparative assessments of undergraduate programs," and, "Unlike reputation rating studies in the graduate and professional domains, ranking studies at the undergraduate level do not produce identical lists." Finally, the chapter on other dimensions and concerns in quality assessment focuses on accreditation and state program review procedures. The authors point out that accreditation has two distinguishing characteristics: it focuses on an institution's capacity to achieve its own goals and objectives, and it is noncompetitive in that institutions are neither ranked nor compared one to another. State-level program reviews, like accreditation studies, are described as adding "public concerns" to the discussion of higher education quality.

The authors arrive at seven important conclusions: "Quality assessments must be referenced to departmental or institutional goals and objectives . . . "; "The diversity of American higher education must be recognized and accepted rather than (as is too often the case) simply paid lip service . . . "; "New criteria should be incorporated into assessments . . . (including) for example, student satisfaction with the educational experience; faculty satisfaction with the academic climate; employer satisfaction with graduates . . . . "; "Quality assessments should give less emphasis to simply labeling programs and institutions . . . and more to pointing the way to improvement. . . . "; "Quality assessments should be dynamic rather than static, taking into consideration not only where a program or institution is now but also where it has come from and where it has the potential to go in the future . . . ."; "More attention should be paid to the 'value-added' concept of higher education . . . . "; "Failure to address the teaching/learning function represents the greatest weakness of quality assessments of American higher education."

13:1.3/78

Measures of Institutional Goal Achievement, Leonard C. Romeny, 57 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

One of the missing links in higher education is that between institutional statements of goals and specific measures of outcomes. It is important in establishing this link that goals be translated into specific outcomes that will indicate the extent to which institutional goals have or have not been achieved. This study attempts this translation.

Some 1,150 faculty, administrators, and trustees participated in this study. They were from 45 institutions representing six types: public doctorate-granting universities, private doctorate-granting universities, public comprehensive universities and colleges, private comprehensive universities and colleges, liberal arts colleges, and 2-year colleges. They were asked about their institutions' goals and how progress toward those goals should be measures. Three general findings emerged: (1) goals and measures preference generally varied across institutional types, not among trustees, faculty, and administrators; (2) traditional process measures of institutional performance, such as student-faculty ratios and expenditures patterns were rejected by almost all categories of respondents; and (3) objective measures pertaining to such impacts of higher education as satisfaction, growth, and value added were most preferred by the study population.

Results of the study are reported by the types of institutions studied and for the respondents' judgments on the appropriateness of 20 different goal areas for their type of institution. These goal areas conform to the Institutional Goal Inventory developed by the Educational Testing Service. In addition, results on appropriate measures of progress are reported by goal area and type of institution. Differences between faculty, administrators, and trustees on appropriateness of goal areas and on preferred measures of progress also are explored.

The study concludes by identifying 14 types of information that would provide acceptable indications of progress for the seven goal areas rated as most important for each of type of institution surveyed. In addition, this information generally would be acceptable to all three types of respondents. The 14 types of information are: student ability to apply knowledge; continuing active intellectual involvement of former students in other than formal, advanced study; courses offerings and institutional opportunities pertaining to the development of individual goals, values, and personal growth; students and/or former students expressing concern for human welfare and well-being; employer satisfaction with former students' vocational or professional training; scholarly works suitable for publication produced by graduate students and/or former graduate students; basic research publications or other results of scholarly effort produced by students or faculty members during the past year; evaluations and perceptions of members of the community regarding the quality of institutional services available to them; existence of special courses and programs to meet the needs of particular groups of students; institutional policies and procedures developed to protect the exercise of academic freedom by faculty and students; attendance and participation by faculty in the faculty senate or similar body; faculty and staff perceptions and evaluation of internal morale; student and/or faculty attendance at cultural activities sponsored by the institution; impacts of modifications made in courses and programs.

13:1.3/77-1

Identifying and Assessing Needs in Postsecondary Education: A Review and Synethesis of the Literature, Oscar T. Lenning, Edward M. Cooper, and J. Robert Passmore, 126 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

In this volume, Lenning points out that: Most colleges have from their founding endeavored to understand the communities and students they serve, and how to best meet their needs, but usually such assessment efforts have been subjective, unsystematic, and ad hoc. During the 1970's, however, a significant body of knowledge has been building that can help institutions to identify the needs of the constitutents they serve, and to evaluate those needs in a much more effective manner.

This document is intended to serve several audiences and purposes, including individuals at the state and Federal levels, by providing them with an overall conceptual framework that could help guide their needs assessment efforts. The document attempts to organize and summarize "all information that could be found about needs assessment and the state-of-the-art as it applies to postsecondary education."

While this is not a "how-to-do-it" manual, it is an important background document for planners and others interested in the emerging topic of needs assessment. A wide variety of approaches to needs assessment are included. These descriptions should help in making various individuals aware of alternative approaches to actual studies of needs.

13:1.3/77-2

Increasing the Public Accountability of Higher Education, New Directions for Institutional Research, No. 16, John K. Folger, ed., 99 pp. (Jossey-Bass, San Francisco).

This sourcebook reviews recent efforts by states to build outcome considerations into their higher education practices. The emphasis is on describing and analyzing actual experiences in specific states, rather than on the development and discussion of theoretical possibilities.

Three specific approaches to obtaining "more accountability and more effective performance from public institutions" are examined: performance budgeting (a budget "that bases at least some funding on the outcomes or quality of the budgeted activity"); performance audit ("an assessment of the effectiveness of an activity or organization in achieving its goals and objectives"); and program reviews ("an assessment of the need for and the effectiveness of a proposed or existing program"). Collectively, these approaches involve a closely related set of concerns about outcomes, quality, effectiveness, goals, objectives, and needs.

State-level performance budgeting is reported by Robert J. Barak, Robert O. Berdahl, Marvin W. Peterson, J. Michael Erwin, and Richard Wilson, with recent developments in Hawaii and Washington cited as examples. "Legislative Program Evaluation" is reviewed by Berdahl, with Wisconsin and Virginia serving as specific examples. Barak addresses the topic of "Program Reviews by Statewide Higher Education Agencies," with Florida and New York as illustrations.

John K. Folger, in his concluding article, provides the following useful analysis of these approaches: First, the interest of public officials in greater accountability of higher education, will probably increase. Second, accountability based only on fiscal considerations is no longer sufficient; instead, accountability for results and effective performance is now expected. Third, the application of performance measures in higher education creates special problems because of the historic autonomy of colleges and universities regarding their academic programs and functions; yet if an audit or review is performance based, it must deal with the evaluation of academic programs. And fourth, so far there is little agreement about how much of any assessment or review can be left to the institution and how much should be undertaken by other state agencies—and by which agencies, at that.

From this analysis it is clear that state-institution relationships are entering a new phase in which productivity considerations will play an increasingly important role. This sourcebook does an excellent job of capturing the substance and tone of this phase in key states.

13:1.3/77-3

A Structure for the Outcomes of Postsecondary Education, Oscar T. Lenning, Yong S. Lee, Sidney S. Micek, and Allan L. Service, 72 pp. (National Center for Higher Education Managment Systems, Boulder, Colo.).

This document describes the development of a system designed to effectively organize information about intended and/or actual postsecondary education outcomes for purposes of classification, analysis, and decisionmaking. The conceptual foundation of the structure characterizing the attributes and other factors important to understanding educational outcomes is described, a proposed structure is provided, and principles and criteria for developing or evaluating any outcome structure are identified. This work is based on a thorough review of previous attempts to structure educational outcomes (see also 10:2.2/77-3) and on 6 years of research on outcomes by the National Center for Higher Education Management Systems.

The authors justify the need for a structure such as theirs by pointing out that:

> Having a wide variety of outcome information without any structure is analogous to possessing a file cabinet in which the contents are randomly arranged. Similarly, without agreement on a common language and context for outcomes, it is difficult for institutional officials to communicate succinctly how their institution and program differs from its counterparts. An effective outcome structure can be of assistance to postsecondary education planners and managers for those purposes as well as for identifying needs, developing goals, translating goals into concrete objectives, setting priorities and plans, and evaluating institutions and their programs.

From an analysis of six attributes or characteristics of an educational outcome and other factors, the authors evolve an outcomes structure that has three dimensions: audience (the persons, groups, or entities that receive and/or are affected by the particular outcome); type of outcome (whether or not the outcome involves a change in status and the basic, specific entity that is maintained or changed); and time (time frame in which outcome occurs or is intended to occur).

Each of these dimensions is disaggregated. For example, the audience dimension is disaggregated into the following categories: individual/group clients, interest-based communities, geographically based communities, aggregates of people, and other audiences. Each of these categories is then further disaggregated into sets of subcategories. The type-of-outcome category is broken down into five major classifications: economic outcomes; human characteristics outcomes; knowledge, technology and art form outcomes; resource and service provision outcomes; and other maintenance and change outcomes. Each of these categories is then further disaggregated into two additional levels of detail. An important feature of this structure is that it suggests a specific numerical coding scheme that allows a particular outcome to be classified with respect to the three dimensions. This coding structure facilitates comparisons across units and time.

A series of useful appendixes are included in the document. For example, one appendix identifies and categorizes over 80 previous attempts to structure educational outcomes and outcome-related concepts. Another suggests some specific outcome measures that could be used for each type of outcome included in the suggested structure.

As outcome considerations begin to be routinely built into planning and other higher education processes, certain conventions should be adopted. This document represents one well-considered effort to provide such a convention for higher education outcomes and thus offers a valuable starting point for many institutions and agencies within higher education.

2.0 COSTS

2.1 Empirical Studies

13:2.1/80

The Costs of Higher Education: How Much Do Colleges and Universities Spend per Student and How Much Should They Spend?, Howard R. Bowen, 287 pp. (Jossey-Bass, San Francisco).

This study is a companion to Bowen's early analysis of the outcomes of higher education, *Investment in Learning* (24:1.1/77-2). And like the earlier study, this thoughtful, quantitative analysis will likely stand for many years as the single best treatment of its topic.

The scope of this study is unprecedented among cost studies. Individual chapters examine: what determines the cost of higher education; long-term trends; faculty and staff compensation; socially imposed costs of higher education; costs of asset maintenance and prices of purchased goods and services; cost differences among institutions; institutional affluence and patterns of resource allocation; effect of institutional affluence on educational outcomes; economies and diseconomies of scale; implications of the study of national trends; and implications of the study of individual institutions.

Unfortunately, there are some notable omissions. For example, Bowen does not address "jointness" effects between the instructional and research missions of some higher education institutions, notably major research universities. Neither does he look at cost differences between undergraduate, graduate, and professional education, or among various program areas such as science, the arts, and the humanities. These omissions are regrettable because Bowen's analyses surely would have been enlightening and because some of these analyses would have forced Bowen to broaden some of his assumptions. For example, Bowen argues: "The incentives inherent in the goals of excellence, prestige, and influence are not counteracted within the higher education system by incentives leading to parsimony or efficiency. The question of . . . the minimal amount needed to provide services of acceptable quality . . . does not enter the process except as it is imposed from the outside." However, this argument overlooks the need for institutions to allocate resources among various programs, levels of instruction, and missions (e.g., instruction, research, public service). Hence, *internal* pressures do exist to minimize the amount spent in a given area so that pressing demands in other areas may be addressed.

In addition to analyzing actual costs, Bowen also makes judgments as to what higher education should cost. For example, he calculates that: "to restore the higher educational system in 1979-80 to the level of performance it had attained in 1969-70 would (require the addition of) $6 to $7 billion (which) would increase the total cost of higher education by about 16 to 18 percent. To bring the whole system up to an acceptable level of performance would increase total cost by about 25 percent." In addition, he offers his personal observations on a variety of cost-related topics including the following:

> The dilemma of the rich institutions is that the relationship between resources and educational outcomes is at best uncertain. No one can be sure that richer institutions are performing with a degree of excellence consistent with their resources.
>
> The dilemma of many of the less affluent institutions is that they cannot get additional resources because they cannot attract more students, and they cannot compete for students because of inadequate resources.
>
> The nation is in great need of new financial policies directed towards the strengthening of institutions. . . . Educational opportunity . . . calls not only for access but also for institutions that are worthy of access.

13:2.1/78

"Product Mix and Cost Disaggregation: A Reinterpretation of the Economics of Higher Education," Estelle James, *The Journal of Human Resources*, Spring, pp. 157-186.

This article makes several contributions to the literature on higher education costs. First, it proposes a behavioral model (theory) against which actual cost data are applied. Most cost studies employ accounting type models which emphasize arithmetic relationships. Second, it specifically addresses cost relationships across various levels of instruction—e.g., undergraduate and graduate—and across various mission areas—e.g., instruction and research. Most other studies aggregate the various levels of instruction and either look exclusively at instruction or include research considerations only in a secondary way. Third, it challenges the results of June O'Neill's study on higher education productivity (5:6.0/71).

The author's theory of a multiproduct, nonprofit organization (NPO), expressed in mathematical form, yields several empirical hypotheses, including:

> The NPO will produce some highly preferred goods at a financial loss. These goods represent a form of consumption to the NPO.

> The NPO will produce other less preferred goods if they can be produced at a profit. This profit will be used to subsidize the production and consumption of other more highly preferred goods.
>
> If the production and consumption of new, more highly preferred goods becomes an option, the production of less preferred goods will be contracted or made less expensive so that the production of the new goods becomes possible.

These empirical hypotheses are applied to higher education as follows:

> If, now, we assume that research and graduate teaching are viewed as 'preferred' activities by the faculty/managers of institutions of higher learning, and an expensive small-class technology is either required or strongly preferred for advanced instruction, one would expect (and the data . . . confirm) that subsidies will be higher for graduates than for undergraduates, will be greater for undergraduates at colleges than at universities, and will be falling through time for university undergraduates as research and graduate enrollments rise. That is, undergraduate education will increasingly tend to be viewed as profitable 'production' activity by universities; graduate education as loss-making 'consumption' activity made financially feasible only because of the subsidy from outside contributors or from other user groups such as undergraduates; and community college teaching will be more costly and heavily subsidized than university teaching of lower division students.

The author states that the faculties' allocation of time to graduate education and research, especially in universities, is increasing, and hence undergraduates' costs are rapidly declining. This leads the author to disagree with June O'Neill's classic productivity study, which found no gains in higher education productivity in the decade between the mid-1950's and mid-1960's: "O'Neill was really observing a change in product mix (more expensive) and teaching technology (less expensive) that just offset each other in her aggregate data."

The author concludes by identifying and discussing the public policy implications of this research.

See also: 5:6.0/A-1 **Higher Education Prices and Price Indexes,** D. Kent Halstead.

2.2 Recommendations

13:2.2/76

Increasing Productivity in the Community College, Bill J. Priest and John E. Pickelman, 36 pp. (American Association of Community and Junior Colleges, Washington, D.C.).

This report describes the procedure used by the Dallas County Community College District (DCCCD) to increase productivity in the District's four colleges. While this document describes the overall process used by the District, most of the examples come from Richland College, one of the DCCCD campuses. This college's efforts to reduce the costs of its instructional and support services without producing a "qualitative sacrifice" were guided by an eight-phase cycle consisting of: (1) recognition/acceptance of need to increase productivity, (2) mobilization, (3) examination of operations/work stations, (4) generation of recommendations to increase productivity, (5) evaluation of productivity recommendations, (6) implementation/rejection, (7) monitoring gains/losses, and (8) rewards.

This study bears a striking resemblance to productivity approaches that are commonly used in industry but rarely in higher education. In fact, business leaders were involved in designing the project. and such industrial engineering techniques as productivity improvement technqiues such as work measurement, time and motion studies, and processes flow charting were used. Typical of industry studies of this genre, the focus of this study was on micro-improvements. The authors note that, "There is not one feature of the college, whether it be the method used by the groundsman to trim his plants or the way the instructor organizes the fifty-minute class periods, that cannot be improved."

While all aspects of the instution were examined, the non academic/support functions "proved most conducive to resource efficiency." This is not surprising since the industrial engineering techniques employed were developed to aid in productivity improvement in areas such as these, rather than to less tangible areas such as executive management and instruction. DCCCD did look at instruction and found, for example, that "the management of time . . . was just as crucial to the performance of an instructor as it was to the office clerk."

13:2.2/75

Institutional Efficiency in State Systems of Public Higher Education, Fred F. Harcleroad, 48 pp. (American Association of State Colleges and Universities, Washington, D.C.)

This volume reports on the outcome of a study by the American Association of State Colleges and Universities (AASCU) to examine and comment on the effects of state-level governing and coordinating boards on public institutions: "In this study, the investigator has made a beginning attempt to determine whether state regulatory-type agencies for higher education, either consolidated governing boards or coordinating boards, have had measurable effects on institutional effectiveness and efficiency."

The major emphasis in this study was impacts on institutional efficiency. The report includes an "analysis of claimed efficiencies and possibly unrecognized inefficiencies of statewide system operations . . . ." Analysis relied on three sources of information. First, opinions were sought from institutional presidents. Second, "where possible, data were secured regarding actual costs, either savings or added costs which are the result of the institutions' membership in a coordinating or governing system." Finally, comparisons were made between large-scale systems of higher education and business organizations of multicompanies and conglomerates.

An extensive questionnaire was administered in the 1974-75 academic year to the 317 member institutions of AASCU. One-hundred and eighty-seven institutions provided timely, usable replies. The questionnaire covered nine areas: "(1) type and classification of the organizational pattern; (2) relationships with executive offices; (3) long-range planning; (4) academic affairs; (5) budget development; (6) fiscal policies and implementation; (7) personnel policies and their implementation; (8) capital outlay and construction; and (9) selection of administrative personnel." Opinions as well as case examples were requested. The author notes that "the trend of the case examples points toward increased costs and inefficiency in such areas as purchasing, personnel, and construction."

Harcleroad offers six recommendations dealing with: the distribution of authority between institutions and external agencies; the need for decentralized modes of operations; the need for state agencies to stress planning rather than operational functions; making budget allocations to institutions on a lump sum basis; keeping personnel decisions at the campus level; and expediting constructional capital equipment projects by involving institutional representatives in all phases of these projects.

13:2.2/72

The More Effective Use of Resources: An Imperative for Higher Education, Carnegie Commission on Higher Education, 201 pp. (McGraw-Hill Book Co., New York).

In the Commission's words: "The central thrust of this report is that total institutional expenditures of higher education must be, should be, and can be reduced by nearly $10 billion per year (in 1970 dollars) by 1980 as compared with the costs which would be incurred if the trend of the 1960s were to be continued; that expenditures should be held to a level of $41.5 billion as against $51 billion per year . . . We seek to show both why this reduction of 20 percent needs to take place and how it can be accomplished without any general deterioration in the quality of higher education."

The Commission suggests that higher education accomplish this most ambitious undertaking by: (1) reducing the number of students, (2) making more effective use of resources, and (3) taking advantage of "windfall" opportunities. The number of students is to be reduced by "accelerating programs and reducing the number of reluctant attenders." Resource use is to be improved by: halting creation of new Ph.D programs and concentrating Ph.D training and federally supported research in fewer institutions; achieving minimum effective size for campuses and departments; moving towards year-round operation; cautiously raising the student-faculty ratio; reexamining the faculty teaching load; improving management; creating more off-campus alternatives and establishing consortia among some institutions and merging others. "Windfall" opportunities forseen by the Commission include: (1) a slowdown in faculty salary increases; (2) a shift in enrollments toward less expensive 2-year colleges; and (3) a shift in research expenditure increases by the Federal Government.

The Commission specifically thinks it unwise to attempt to improve efficiency by avoiding or delaying necessary maintenance, cutting back on library expenditures, making student aid less available, or relying too much on transient, low-paid assistant professors. Moreover, the Commission speaks out against "state interference with internal budgeting details and arrangements such as required teaching loads."

Achieving effective use of resources while preserving the "spirit of the academic enterprise," the Commission points out, is going to be a complex matter. The Commission sees solutions in: "(1) general tests of performances and general formulas for support by the states, (2) greater reliance on the market . . . , and (3) greater self-discipline within the academic enterprise, a greater sense of responsibility for the effective use of resources. . . . "

Today, several years after this report was issued, none of its many recommendations has been universally or even widely adopted. Yet each recommendation is still being discussed and, in many cases, relevant experimentation is going on. Despite the passage of time, the Commission's recommendations retain relevance and their potential impact.

See also: 30:3.0/71 **Effeciency in Liberal Education,** Howard R. Bowen and Grodon K. Douglass.

This report, subtitled "A Study of Comparative Instructional Costs for Different Ways of Organizing Teaching-Learning in a Liberal Arts College," "explores the possibility of improving educational quality while reducing its costs." The costs of six different modes of institution are compared at a hypothetical liberal arts college of 1,200 students and 100 faculty members.

The six specific modes of instruction compared are: a *conventional plan*, variations of which are in use at most independent liberal arts colleges; a modified version of the *Ruml plan*, featuring a few large lecture courses; and *independent study plan*, putting major learning responsibilities upon students; a *tutorial plan* designed by David Baken; a plan of individual instruction linked to modern teaching-learning equipment, referred to in this study as the *Kieffer plan;* and the *eclectic plan*, a mode of instruction designed by the authors themselves.

The eclectic plan while "an amalgam of the other methods," is the approach ultimately endorsed by the authors. Analyses of the other five plans showed that the independent study approach had the best potential for both lowering costs and raising instructional quality as compared to the conventional plan. The Ruml plan also showed promise in this respect.

In the author's words, if a mode of instruction is to affect cost, it will ordinarily do so through one or more of the following ways: (1) substituting low-cost labor for high-cost labor; (2) increasing intensity of labor usage; (3) substituting student initiative for faculty supervision; (4) substituting capital for labor; (5) intensifying utilization of capital; (6) substituting low-cost capital for higher-cost capital; (7) changing curricular mix; (8) reducing noninstructional services; and (9) spreading overhead costs by increasing the scale of operation.

While this study was done in the contect of a small, liberal arts college, its methodology is clear enough to be adapted to other types of institutions. This study suggests that there is a good possibility that the conventional approach to instruction can be improved with respects to cost and quality. This important finding, backed up by appropriate numerical results, deserves widespread consideration.

2.3 Methodology

13.2.3/80

"Cost Studies in Higher Education," Stephen R. Hample, *The AIR Professional File*, No. 7, Fall, pp. 1-4.

This succinct article achieves its goal of serving as "a guide to institutional researches as they work through the cost study maze." Written for the benefit of those who are faced with the necessity—because of internal or external mandates—of doing a cost study, this article alerts readers to potential problems and directs them to other publications for more complete treatments of particular topics.

The author discusses simply and programtically five areas of special concern in doing a cost study: direct and indirect costs; breaking costs down by field; relating costs per student credit hour to costs per student per quarter; relating costs per student credit hour to costs of degrees; and using the completed cost study. Of special benefit to the first-time assembler or user of cost study information is the author's list of issues, or "synthesized arguments," that could arise in almost every cost study. Included among these arguments are: (1) the cost-study measures "what is," "what should have been;" (2) the cost study shows our department to be a high-cost area, which I suppose is true, but it neglects the quality of our department; (3) I can show you studies from other institutions that prove this field is always a high-cost area; (4) our department does not have graduate teaching assistants, so naturally, lower division cost are less in other departments; (5) other department slook more efficient than we do because they are able to hide some of their costs; (6) the building in which are housed lacks large, modern lecture rooms, virtually prohibiting us from adopting a more cost-effective form of instruction; (7) ours is a special clientele and our program seeks to give them the special attention; (8) enrollments are abnormally low. We realize that out costs are somewhat high, but we are developing attractive new student options that will return us to our normal cost level.

The author notes that each of these arguments "has merit" and that "no easy solution exists for any of them." He further points out that, "Many problems requiring individual judgment and adjustment can make cost studies long and tedious work. Even after these problems are remedied, virtually all affected persons will be able to offer philosophical criticisms of the procedures employed or the implications of the results. Yet, the desire for cost information persists."

13:2.3/79

Cost Information and Formula Funding: New Approaches, Richard H. Allen and James R. Topping, eds., 69 pp. (National Center for Higher Education Management Systems, Boulder, Colo.).

This report grew out of a 1979 conference that focused on the use of cost information in four states: Florida, Indiana, Washington, and Wisconsin. The conference addressed the uses of cost information in state-level planning and budgeting, and how these uses might be altered by the widely predicted decline in higher education enrollments. The four case studies in this document draw on materials presented at the conference and on interviews held with "institutional staff, postsecondary education agency staff, executive budget staff, and legislative staff in each state."

The Florida case study revolves around the efforts of the staff of the Division of Community Colleges to develop a funding formula that distinguishes between fixed, variable, and semivariable costs. These efforts led to a funding formula that was "not adopted by the legislature, primarily because of the effects of the formula on colleges in the districts of several key legislators, the complexity of the formula, disagreement about the behavior of semi-variable costs, and a debate about the appropriateness of the size categories for colleges." The Indiana case study focuses on the marginal costing procedure that Indiana uses to fund enrollment changes at its six public institutions. The procedure consists of a table that relates "percentage change in enrollment" to "marginal cost as percentage of historical average instructional costs." The Washington cas study focuses on the Washington Unit Expenditures Study, an activity-based costing system used by two state postsecondary education agencies, but not directly by the legislative and executive branches. And the Wisconsin study details a cost study that "well accepted at the institutional, system, and state levels" because of its "perceived accuracy," in setting tuition and fee levels allocating resources among institutions and funding the University of Wisconsin System.

The case studies are preceeded by two papers. The first, by Harold Enarson, president of the Ohio State University, describes "The Uses and Abuses of Cost Information; the second, authored by Frank Pesci, a Maryland State legislatory presents a legislator's view.

Enarson's paper is especially helpful, but the author's evident biases toward institutional management as opposed to state-level coordination must be kept in mind. Nothing that "Simple course-enrollment counts of our customers can no longer serve as the basis for calculating and determining the dollar needs of institutions," Enarson lays out several key criteria for a new approach, e.g., avoid line item restrictions and include quality considerations; do not use single measures, such as headcount students, but instead use appropriate measures for different areas, such as square feet for buildings and acres for land. The author's position on fixed and variable costing is especially interesting; "All costs are varable; they change as a function of one or more factors. The problem is to identify those factors that should be substituted for, or combined with, the FTE student unit." Finally, Enarson urges that, "administrators must shed their dependence on cost history as the sole basis for predicting future funding needs. Because of rapid expansion, and awesome series of future costs (not dreamed of in historical cost analyses) has developed." He cites as examples of "future costs": equipment replacement; building maintenance and repair; building rehabilitation and renovation; and meeting new program needs in the absence of new money.

In a concluding assessment, the editors make several pertinent observations about the future prospects for cost studies: Changes in current costing procedures are more likely to take place in states that expect substantial enrollment declines that in those that do not; important trade-offs can be made between accuracy and simplicity; and, the need to involve political and educational parties in a cooperative effort is growing in importance.

13:2.3/78

A Study of Cost Analysis in Higher Education, Carl R. Adams, Russell L. Hankins, Gordon W. Kingston, and G. Schroeder, 748 pp. (American Council on Education, Washington, D.C.).

This massive, well-documented report is a current and authoritative description of how costing is being used in institutions of higher education and as such, is a major contribution to the literature on higher education costing. The report, which is based on a study financed by the Ford Foundation, consists of four volumes: I *The Literature of Cost Analysis in Higher Education* (Adams, Hankins, Schroeder); II, *The Production and Use of Cost Analysis in Institutions of Higher Education* (Adams, Hankins, Kingston, Schroeder); *Site, Visit Descriptions of Costing Systems and Their Use in Higher Education* (Schroeder, ed.); and *The Future Use of Cost Analysis in Higher Education* (Adams, Kingston, Schroeder).

The first volume identifies and organizes the literature of cost and cost analysis in higher education. The literature is restricted to that designed "to supply institutional administrators with data for making informed rational decisions." The authors develop useful methods for distinguishing among various cost concepts and types of cost analysis. The organize the discussion of the literature into four major categories and several subcategories; resource acquisition (estimation of current fund requirements, pricing, cost recovery); resource allocation (allocation to organizational unit, object budgeting, cost-income budgeting, internal or transfer pricing, programmatic allocation); resource management and control (fiduciary accounting, cost accounting—variances, responsibility accounting); accountability. Significantly, the review does not cover the areas of "macroeducational planning and financing," opportunity costs, societal and individual "out-of-pocket" costs, benefits of education, and cost-benefit analysis. The emphasis is principally in the area of instruction.

Volume II is the "keystone" monography. Its aim is to present and analyze data collected from administrators and information system specialists in colleges and universities regarding the current use and usefulness of cost information. The authors report their 25 most important findings in four major areas: data availability; production of cost information; institutional use of cost information; and overall observations and recommendations.

Volume III describes the site visits made to 17 institutions in four states (Colorado, Florida, Michigan, and Ohio).

Volume IV is concered with the future use of cost analysis in higher education. Its draws upon the extant literature, the "experience-based" judgments of the authors, and a Delphi study utilizing a panel of 120 individuals. The results of this study, covering a 20-year time frame, are presented for institutions, states, and the Federal Government.

An interesting dichotomy is observed from these studies. Universities undertake detailed cost accounting to justify indirect cost recovery on Federal grants and contracts, as negotiated rates depend on such justifications. The resulting revenue, subtracted from research funds awarded, is important to university administrations as a budgetary component. For academic management, however, these universities are generally chary of producing and using detailed cost figures to assist academic policy decisions.

The authors are not optimistic that institutions of higher education will develop methods of coping with difficult cost-allocation problems where joint processes (as in graduate teaching and closely associated research teams of graduate students and faculty) are the rule.

13.2.3/77

Cost Behavior Analysis for Planning in Higher Education, Daniel D. Robinson and Frederick J. Turk, 101 pp. (National Association of Colleges and University Business Officers, Washington, D.C.)

This report was written in response to a concern by the National Association of College and Business Officers that historical costs were indiscriminately and often inappropriately being used to project costs as part of the planning process. This report is "devoted to describing the process of analyzing behavior of costs and revenues in higher education."

The major points of this study are : (1) alternative courses of action consist of changes in (a) goals, specific objectives, programs, (b) policies, and (c) organizational structure; (2) when examining the economic consequences of many alternatives, administrators must consider effects on revenue as well as on cost; (3) estimating future economic activity involves determining the fixed and variable components of total costs for the alternatives selected, as different levels of volume; (4) institutional decisions, as well as environmental conditions that are beyond the institution's control, influence cost behavior; and (5) noneconomic information about programs, students, faculty, and other considerations should be examined when making decisions about the future.

The Appendixes to the report provide numerical examples of various aspects of projecting costs and revenues; one of the most useful appendixes provide examples of decision factors that affect the costs for selected organizational entities. Some 18 institutional areas are cited, and within those areas, the authors list, for example, 15 separate decision factors that would affect the projection of library costs and 11 decision factors that would affect the projection of financial aid administration costs.

This report should be helpful to planners concerned with the adequacy of their methods of projecting costs. Although the report is not a procedures manual for performing cost-behavior analysis, it does discuss in clear terms

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the concepts underlying such analysis and the application of these concepts to institutions of higher education.

3.0 COST/OUTCOME RELATIONSHIPS

3.1 Empirical Studies

13:3.1/77-1

Understanding Joint Production Process: A Convex Hull Approach, Robert G. Gray, 126 pp. (unpublished doctoral dissertation, University of Colorado, Boulder).

The primary purpose of this research was to develop a new way of identifying the most efficient producers—in this case from among university sciences departments—where there are multiple inputs and outputs to be considered. In a sample study, this new approach was applied to all the Ph.D-granting departments of chemistry in the United States. Some 169 departments out of a total of 183 provided data on: (1) number of faculty, (2) the research and development budget, (3) the number of undergraduate degrees reported, (4) the number of graduate degrees awarded, and (5) the number of publications produced by faculty within the department. Separate results are presented for small (less than 17), medium (between 17 and 26), and large (over 26) departmental faculties.

It is especially interesting that, on average, the most efficient departments produced *more of each of the outputs* (undergraduate degrees, graduate degrees, publications) while using *less of each of the inputs* (faculty, research, and development) dollars) than did the least efficient departments. This result was true for both medium and large departments. The only difference between the most efficient department and less efficient departments was that the less efficient departments, on average, had few research and development dollars to work with. This is a most astounding finding. While it is not conclusive because more variables may need to be taken into account, it does demonstrate that there are enormous variances in the productivity of Ph.D-granting chemistry departments. This limited study suggests that a parallel series of studies of other types of departments could produce findings that would have important implications for higher education and related planning.

13:3.1/77-2

Procedures for Determining Historical Full Costs, National Association of College and University Business Officers and National Center for Higher Education Management Systems, 202 pp. NCHEMS, Boulder, Colo.).

This manual describes how to conduct a study of instructional and institutional costs, as outlined by the Information Exchange Procedures

(IEP) of the National Center for Higher Education Management Systems (NCHEMS). The purpose of IEP is to suggest a ''set of standard definitions and procedures for collecting information about disciplines and student degree programs, outcomes of instructional programs, and general institutional characteristics.'' This information is intended for in use internal planning and management and for interinstitutional comparisons. The costing procedures and definitions recommended in the manual are described as ''targets'' that may be easier for some institutions to realize than others.

Three kinds of costing are discussed—full, variable, and standard. This manual presents procedures only for full costing. These full-costing procedures ''calculate the average direct, indirect, and full cost for instructional disciplines and student programs.'' A nine-step process for conducting a historical full-cost study is developed and described. In addition, this manual describes NCHEMS' Costing and Data Management System, a computer program designed to facilitate a full-cost study using proceduresdescribed earlier in the manual.

An appendix to this how-to manual contains a reprint of the 1975 NACUBO article on ''Fundamental Considerations for Determining Cost Information in Higher Education.'' This article covers a number of important topics, including: costing terminology, costing and financial accounting, cost determination methods and approaches, indirect cost allocation, types of cost analysis, costing issues, and costing standards.

This package of suggested procedures, supporting computer software, and overview article is valuable because it presents in clear, concise language the because concepts, tools, and caveats necessary for someone planning or considering a study of historical full costs on an institutional basis.

13:3.1/72

The Production and Cost Behavior of Higher Education Institutions, Daryl E. Carlson, 181 pp. (University of California, Berkeley).

This volume reports on a study to identify and analyze ''frontier institutions,'' i.e., those that are producing more outputs than institutions utilizing similar amounts of inputs.

This study, based on a sample of 673 4-years higher education institutions, used some 20 variables—eight input variable, four enrollment variables, and eight institutional characteristic variables. Institutions were analyzed and are reported on according to seven categories: (1) public, doctoral-granting institutions with emphasis on research; (3) public, comprehensive colleges that offer a liberal arts program as well as several other programs; (4) private, comprehensive colleges that offer a liberal arts program as well as several other programs; (5) public, limited comprehensive colleges that offer a liberal arts program as well as at least one professional or occupational program; (6) private, highly selective, liberal arts colleges; and (7) private, less selective, liberal arts colleges.

The results of the study are most interesting. For example, on the input side, the most efficient institutions use between 20 and 76 percent (depending on the type of institution) fewer senior faculty than the average institution of the same classification. On the output side, the most efficient, as compared with the average, have from 13 to 55 percent (depending of the type of institution) more full-time undergraduates. Another finding of considerable importance is that "it is not valid to isolate one activity of the institution and to analyze the production and cost relationships associated with that activity in isolation from all the other activities of the institution." This finding is based on an analysis of the marginal costs of undergraduate students for institutions that have different levels and mixes of enrollment and different research and public service involvements.

This study has many ramifications for planning. First, it raise the question of whether planning will be based on the standard of an average institution or an efficient institution. Second, it raises the question of what factors are associated with efficient as compared to just average performance. Third, it make the empirical point that various types of institutions, whether they are efficient or not, have quite different methods of production that must be taken into account in the planning process.

See also: 5:6.0/71 **Resource Use in Higher Education: Trends in Output and Inputs, 1930 to 1967,** June O'Neill.

3:2.3/76-1 **Education As an Industry,** Joseph N. Froomkin, Dean T. Jamison, and Roy Radner, eds.

3.2 Recommendations

13:3.2/81

"Beyond Productivity to Quality," Harold L. Hodgkinson forthcoming *Current Issues in Higher Education, 1981*.

This brief paper, presented at the 1981 National Conference on Higher Education, does an excellent job of critiquing the current bent in higher education toward productivity approaches that emphasize numerically based efficiency measures—e.g., credit hours per faculty member, and research articles per researcher. By reference to the evolution of productivity concepts in American and Japanese industries, the author suggests that higher education's approach to productivity is copying outdated ideas from industry. Hodgkinson sees a need for higher education to "think about productivity and quality in terms of the business *we* are in, not by aping the usage of business thirty years ago."

To aid in this thinking process, leading question are suggested in the following four areas: productivity in our national system of higher education; productivity in our state systems of higher education; productivity in our institution of higher education; and, yardsticks of quality and productivity—the 'value-added' approach. Hodgkinson asks questions such as the following: "Realizing that only one in four adults being educated is in a college or university . . . have we been helpful to the other institutions that perform valuable human services in our society?" "Does the state system of coordination work to encourage institutional differences and innovation?" "Is the staff differentiated by excellence on particular tasks?" Should students "be taught what they already know?

The challenges laid down by the author have the potential to help invigorate both research and practice in the field of higher education productivity; they represent a promising philosophical "turning point," and thus merit careful consideration.

13:3.2/77-1

"Direct and Incentive Planning Within a University," Stephen A. Hoenack, *Socio-Economic Planning Science*, Vol. II, No. 4, pp. 191-204.

This article examines the proper mix of "direct" and "incentive" planning within higher education. Direct planning is defined as providing university administrators or designated committees with the discretion of allocate funds to academic units. Incentive planning results from trying the budgets of decentralized units to their performance in meeting the demands of their constituencies and from making the units responsible for differences between their budgets and their costs. While the article focuses on the blend of direct and incentive planning within an institution, it has relevance for a similar question at the state and Federal levels. The example used for reporting empirical results is the University of Minnesota.

The author explores the concept of a "responsibility center budgeting system (RBS) as a device for implementing the concept of incentive planning" . . . The most important characteristic of a RBS is that colleges [within an institution] would be permitted to retain excesses of income over costs (additional discretionary funds) and would be responsible for excesses of costs over income." The author's analysis is that RBS would create incentives to: (1) "increase enrollments, especially in programs with strong demand and/or low cost"; (2) develop "curricula for non-traditional education programs," especially for "faculty with comparative advantages in instruction"; (3) reduce both direct and support costs; (4) reduce the decisionmaking participation of "unaffected and uninformed parties"; (5) possibily increase discretionary funds by a "reduction in academic quality or a departure from the college's academic mission"; and (6) possibly avoid "programs with high costs relative to demands." The author points out that these latter two incentives, in his opinion, are perverse as contrasted with the other "beneficial" incentives.

The author concludes that a carefully chosen combination of direct and incentive planning can enable universities to adapt advantageously to their changing environments.

13:3.2/77-2

"The Incentive Structure of a University," Richard M. Fenker, *The Journal of Higher Education*, Vol. XLVIII, No. 4, July/August, pp. 453-474.

Higher education institutions are characterized by considerable autonomy and freedom of choice on the part of both students and faculty. Because of this, the assembly line analogy where inputs can be simply and reliably linked to outputs is not applicable. Rather, a series of more complex phenomena need to be understood, including the incentives and disincentives that are created for individual behavior. These incentives and disincentives need to be explicitly considered in the planning process.

This article focuses on identifying and improving the incentive structure for faculty. The author describes and incentive structure as:

> An empirical framework for an organization which characterizes (preferably in mathematical terms) the relationships between specific behaviors of employees and the probabilities of receiving various incentives. The term incentive is used very broadly and includes a wide variety of noneconomic 'rewards' commonly used in academic settings as well as the more obvious raises or promotions.

The specific example used is that of a "private university concerned with improving the quality of its teaching", however, the issues and methodology are relevant to both public and private institutions.

The authors identifies seven questions that need to be answered vis-a-vis an institution's incentive structure: What behaviors are expected of faculty? How does the importance of these behaviors vary across colleges, departments, or other subgroups? What incentives are available and how important or valuable are they to faculty? How does the importance of incentives change as a function of the academic unit or demographic division (e.g., rank, years, or experience) of faculty? What connections has the administration established between incentives and specific behaviors? How does the university's operational structure compare with the faculty's perceived and ideal structures? What changes need to be made or can be made to bring faculty expectations more into congruence with university objectives or vice versa?

13:3.2/71

Less Time, More Options, Carnegie Commission on Higher Education, 45 pp. (McGraw-Hill Book Co., New York).

This report has nine major themes: (1) reduce the length of time spent in undergraduate college education by one-fourth; (2) give young people more options in lieu of formal college, to defer college attendance, to get service and work experience, and to alter directions while in college, (3) make opportunities for higher education available to persons throughout their lifetime; (4) make greater use of the master of philosophy and doctor of arts degrees; (5) increase the number of accepted degree levels from two (B.A. and Ph.D) to four (A.A., B.A., M. Phil., and D.A., including the Ph.D.); (6) reduce the emphasis on certification through formal higher education and reduce the number of specialized degrees; (7) reduce projected operating expenditures from 10 to 15 percent a year through these reforms; (8) make higher education more accessible to women and older students; and (9) promote the mixing of higher education and work experience throughout a lifetime. Some of these themes clearly anticipated—and may have helped to precipitate—key issues that are currently being discussed and researched such as lifetime education, adult learning, new education and work patterns, and access for women.

The report suggest how to implement its recommendations. One chapter spells out how various groups can assist in making these development possible: the Federal Government, state governments, foundations, parents, students, professional associations, high schools, colleges and universities, the Council of Graduate Schools, accrediting agencies, and testing agencies. This chapter is interesting because it clearly demonstrates how many groups have to cooperate if major changes of any type are to be made in the system of higher education. This discussion can serve as good prototype for systematic analyses that should be part of all major productivity improvement proposals.

See also: Topic 25: Educational Communication and Technology; Topic 3: Economics, Subtopic 2.0 Incentives and Faculty and Institutions.

3.3 Methodology

13:3.3/77

A Review of Production Function Estimation for Higher Education Institutions, Daryl E. Carlson, 122 pp. (Graduate School of Education, Harvard University, Cambridge, Mass.).

In the author's words, "the purpose of this paper is to review many of the studies that have attempted to estimate various dimensions of higher education production and cost behavior. This review will critically examine the data, methodology, and results of these studies."

The author divides production and cost studies into four useful categories: descriptive studies, regression studies, frontier studies, and synthetic studies. Descriptive studies "describe different production and cost situations . . . no effort is made to statistically or computationally relate one variable to another." Regression studies "attempt to statistically estimate behavioral relationships between two or more of the variables." Frontier studies "generate information about efficient and effective relationships as obtained from aggression studies." Synthetic, or "building block," studies "model a production process by decomposing it to a very basic level and then studying alternative ways of putting the pieces back together which will accomplish alternative mixes and levels of outputs."

These four types of studies represent the alternatives available to planners and others for studying the production processes of higher education. Since these studies vary in character and in types of information they produce, choices among the methodologies should be made with full appreciation for their strengths, weaknesses, and requirements (e.g., data, computation aids).

The author also identifies and discusses eight issues that must be considered, along with data and computation requirements, in making a choice among the various production estimation techniques: Are industry average or frontier estimates desired? Are explicit measures of the degree of efficiency needed? Are jointness among inputs and/or outputs a consideration? Should qualitative as well as quantitative consideration be taken into account? Are output preferences to be studied? Are static or dynamic estimates to be made? Is comparison or prediction intended?

The author appropriately points out that these technqiues differ not just in their statistical and computational properties, but in their policy implications. The type of study undertaken will determine the kinds of information that are and are not available and, to a significant extent, the kinds of issues that are and are not raised. Hence, the planner or analyst needs to carefully consider the policy environment in choosing among types of studies and in using the final results.

13:3.3/75

Measuring and Increasing Academic Productivity, New Directions for Instititional Research, No. 8, Robert A. Wallhaus, ed., 133 pp.) Jossey-Bass, San Francisco).

In his introductions, which provides an interesting perspetive on the importance of productivity in higher education, the editor writes:

> All policy questions and all planning and management decisions in higher education are traceable to the underlying problem of

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> improving the productivity of programs, institutions, and the educational system. That is all decision and policies are ultimately based on the common objectives of expanding or enhancing the benefits of higher educaton for individuals and society and at the same time delivering these benefits at the lowest possible cost.

This sourcebook contains six articles. In "The Man Dimensions of Productivity," Wallhans discusses the "many definitions and perspectives that relate to the notion of productivity in higher education." Rick Hanushek, in "Learning by Observing the Performance of Schools," writes that "It is amazing how discussions of productivity and efficiency in postsecondary education remain to thoroughly uncluttered by facts." He suggests how to best go about the assembling the necessary "facts." "Examining Efficient Joint Production Processes" is report on Daryl Carlson's continuing efforts to develop and apply analytical tools that can identify efficient institutions. Robert Staaf and Wayne Kirschling address the topic "Efficiency and Produtivity: A Behavioral View." They argue that student and faculty productivity must be considered as an interdependent process. Furthermore, since students and faculty are accorded considerable freedom of choice, the design of incentive systems becomes crucial.

"Productivity From an Interorganizational Perspective," written by Richard K. Meisinger, Jr., Ralph A. Purves, and Frank A. Schmidtlein, looks at state budgeting for higher education and "reveals some reasons for the gap between theoretical concepts of productivity improvement and state and institutional practices." In the concluding article, "Opportunities for Improving Productivity," David R. Witmer examines a broad range of possibilities, including: class size, instructional techniques, student-institution fit, yeararound operation, shifts to high-value programs, phasing out and closing down, time-shortened degrees, externalizing higher education, consortia and external resources, faculty-initiated curricular reform, faculty augmentation and transformation, and budget reductions and shifts.

13:3.3/72

Elements Related to the Determination of Costs and Benefits of Graduate Education, John H. Powell, Jr., and Robert D. Lamson, 291 pp. (Council of Graduate Schools in the United States, Washington, D.C.).

This document emanates from a resolution passed at the 1968 annual meeting of the Council of Graduate Schools (CGS) to "present in one volume a report on the state of development in areas of cost and benefit information." Hence, the document attempts to "identify the benefits of graduate education and to analyze of college and university costs.'" The authors recognize that they are taking "a step towards standardizing cost allocation procedures and cost information."

The volume contains eight chapters. Chapter 1 deals with resource allocation in graduate education; Chapter 2 is devoted to outputs; Chapter 3 treats cost information; Chapter 4 addresses the topics of activity definitions, measuring academic manpower use, and opportunity costs of capital services; Chapter 5 looks at indirect cost allocations; Chapter 6 examines unit costs studies; Chapter 7 looks at four alternative ways of allocating research costs; and Chapter 8 looks at available information on the costs of graduate information. A very useful bibliography with 350 entries is included at the end of the document.

This is a rare study of the costs and outcomes of graduate education. As such, it is a valuable reference to planners and others who must deal with the special consideration it involves.

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Research and Research Administration

Frederick E. Balderston
assisted by Charlotte P. Alhadeff

The research process focuses on the discovery and exploration of new concepts and findings that add to knowledge in science, humane letters, and the professions. The nation's research activities, of which university research is a significant part, contribute in numerous ways to the national welfare. Yet many aspects of the role of research in higher education are matters of current controversy, and university research and its management are becoming of increasing institutional and public concern.

This chapter focuses on the organization of research activities; the relation of research to other educational functions in universities; and the facilities, personnel, and administrative requirements for the conduct of research. This emphasis is promoted by the number of large-scale, client-sponsored programs of applied or clinical research at universities that, while offering special opportunities, also create problems of staffing, budgeting, and control.

The chapter does not cover specific strategies for accomplishing research or research methodologies; commercial research and service functions, though these occasionally may be conducted in universities; individual creative scholarship that is an incident of the professorial role; and the organization of research funding and the formulation of priorities by Federal and state agencies.

Research and research administration includes several subtopics. First, there are important problems of organization and management of research at the institutional level. Second, at the national level there are important questions regarding the fraction of the nation's resources that is spent on research and the portion of these resources that is to be supplied, under varying policy guidelines, by Federal agencies. Third, there are intricate relationships between government, industry and the universities in research policy and in the conduct of research.

TOPIC ORGANIZATION

14: Research and Research Administration
- **1.0** Institutional Management for Research
- **2.0** National Research Policy, Resources, and Data
- **3.0** University-Government-Industry Relationships in Research

1.0 INSTITUTIONAL MANAGEMENT FOR RESEARCH

14:1.0/79-1

Scientific Productivity. The Effectiveness of Research Groups in Six Countries, Frank M. Andrews, ed., 470 pp. (Cambridge University Press, New York, and Unesco, Paris).

This book reports the results of an international comparative study, sponsored and coordinated by Unesco, of the effectiveness of scientific research. Six European countries (Austria, Belgium, Finland, Hungary, Poland, and Sweden) took part, each establishing its own research team to carry out the study. In each country, a sample of research units being defined as "a cluster of scientists and technical support personnel working under single leadership, sometimes as a team, on a specific research or experimental development project" covering the academic, private, industrial, and public sectors, as well as a broad range of natural and social sciences. Questionnaires were then sent to all unit heads as well as to a sample of staff scientists and technicians in each unit: over 11,000 individuals in some 1,222 research units.

The analysis of this somewhat formidable collection of data is intended to provide guidelines for better science policy and research management and to advance methodology in the study of research effectiveness. To this end, contributions to the book are organized not by country but by topic: chapters on the effects of various organizational variables upon research performance are followed by a series of chapters on methodological matters.

14:1.0/79-2

Management for Research in U.S. Universities, Raymond J. Woodrow, 111 pp. (National Assocaition of College and University Business Officers, Washington, D.C.).

This concise and comprehensive volume is based on the author's long-time experience in research and research administration at Princeton University. Woodrow puts forth insights and principles concerning all of the major topics of management *for* (not "of," the author argues) research. Throughout, the subtleties of managing the framework in which creative work is done in an academic institution are well-stated.

The 10 chapters of the volume cover (1) the climate for research; (2) policies and criteria; (3) developing and implementing sponsored research; (4) interdisciplinary research; (5) professional personnel other than faculty; (6) patents and copyrights; (7) indirect costs; (8) administrative offices and supporting services; (9) organization; (10) a preferred system of management of research. Of particular note is Woodrow's discussion of the conceptual basis for indirect costs (in chapter 7) which shows how the conventions of cost-pooling and allocation evolved. Chapters 9 and 10 provide very helpful guidance to the functions and organization of research administration in the individual institution.

14:1.0/78-1

Non-Tenure Track Science Personnel: Opportunities for Independent Research, Irene L. Gomberg and Frank J. Atelsek, 37 pp. (American Council on Education, Washington, D.C.).

This report is based on a 1976-77 survey of over 240 institutions that award the Ph.D or the M.D. degree. The authors calculate that there are approximately 5,300 full-time faculty and staff members who are doctoral-level nontenure-track (science) personnel. This group, they conclude, constitutes a considerably underutilized resource in the nation's biomedical research. As evidence, they cite the significant number of persons in this group who have not been engaged in research as principal investigator in recent years.

The survey data covers the fields, type of institutions, and sex characteristics of nontrack-tensure personnel, and the differences (if any) between those who are engaged in research as principal investigators and those who are not. This report provides considerable information about a group of university scientists about whom little is known.

14:1.0/78-2

Trends in the Organization of Academic Research: The Role of ORU's and Full-Time Researchers, Albert H. Teich, 90 pp. (George Washington University, Washington, D.C.).

To maintain academic vitality in the face of austerity and a declining annual number of faculty appointments and their research funders, universities can consider enlarging their research organization and their numbers of nonfaculty research professionals. In the volume, Teich assesses two variations of this strategy: the greater use of organized research units (ORU's) that are integrated with academic activities within universities proper; and the further development of university-affiliated national laboratories, organized to be distinct from the campus departments and colleges but operated by a university or by a university consortium. Nonfaculty research professionals have had equivocal status relative to those holding regular faculty appointments, and Teich's study suggests prospects of increasing tension if universities and their funding sources expand on-campus ORU's and their research cadres. Teich recommends followup research on research career patterns and on the implications of Federal research funding policies.

The practices of five universities' research organizations are summarized in appendixes.

14:1.0/77

The Management of Federal Research and Development, MITRE Corporation, METREK Division, 134 pp. (MITRE Corporation, McLean, Va.).

This monograph summarizes a survey of research managers and a followup conference sponsored jointly by the National Institute of Mental Health, the American University, and the METREK Division of the MITRE Corporation. The monograph includes three agenda-forming statements and eight invited papers, each of them impressively concise, on such topics as "Determining Scientific Priorities," by J. Thomas Ratchford; "Improving Policy-Making," by Laurence E. Lynn, Jr.; and "Conducting Useful Evaluations," by the late Marcia Guttentag. The book concludes with nine reports of conference workshops on research management topics.

This volume has numerous uses for the sophisticated reader. Candid anecdotes and personal "war-stories" provide illustration of the many problems that researchers, research managers, and policy-level administrators confront in Federal research establishments and federally-supported applied research. Several invited papers contain valuable examples of how Federal research priorities and policies are developed and of how research managers confront changing patterns of governmental organization.

Laurence Lynn, who has chaired a 3-year National Academy of Science review of social research, argues that more coherent and consistent governmental policymaking, not better research management as such, is the most important precondition for improved social research and development. Howard Davis of the National Institute of Mental Health analyzes several approaches to the design and conduct of research intended to produce useful change. A.B. Linhares, of the U.S. Department of Transportation, analyzes structural problems of technology transfer for Federal research and development.

This monorgraph provides a uniquely rich and timely perspective on Federal research and development policies and management. For university policymakers and research professionals, it interprets in a fresh way the environment of Federal involvement in research, especially applied research; policy formulation, definition of objectives, resource allocation, research program management, evaluation, and use of results. There are many useful hints for the practitioner interested in survival in a complex world of organizational competition and politically defined accountability.

14:1.0/76

ORU's and Politics: Or, When Is Organizational Murder Justified? C. West Churchman, 15 pp. (Center for Research in Management Science, University of California, Berkeley).

This study (working paper in Management Science, CP-398) is one of the products of the University of California, Berkeley, National Science Foundation-sponsored Research Management Improvement project. Written in response to the Bolce paper (14:1.0/75-1) on organized research unit review, the study offers an interesting addition to the literature on research review by critically examining the moral politics that characterize such a process. Like Bolce, Churchman addresses the situation on the Berkeley campus of the University of California. He is concerned, however, with the broad problem of how people should justify the perpetuation or termination of research organizations, and the author defines different "Weltanschauungen" that set forth versions of how this ethical issue should be resolved. These are the systemic approach (in which justification for a unit is based on some notion of common good) and the political approach (in which survival is contingent upon political clout). The author argues that a third approach, which considers the spirit of a research organization, also may be appropriate for research evaluation.

14:1.0/75-1

The Review Process for Berkeley Organized Research Units, Jane Wellman Bolce, 51 pp. (Center for Research in Management Science, University of California, Berkeley).

This (working papers in Management Science, CP-394) was sponsored by a National Science Foundation grant on Research Management Improvement. Although Bolce's study was limited to the review process as it is conducted at one university, this report provides an indepth description with some analysis of the peer review process of organized research on that campus.

To the extent that the author's findings can be generalized to other institutions, this piece is of interest and use. It describes the policy of review of organization research units and gives a detailed history of the application of the policy to 10 different units. The effect of the reviews on the units is then analyzed. The author found that although the review policy could be said to be effective in that administrators tended more or less to follow it, the findings of review committees often were ignored and recommendations regarding administrative, funding, and research changes often were not implemented. Bolce offers several suggestions for making reviews more effective administrative devices.

14:1.0/75-2

The Management of Research in the University of California—The Investigator's Perspective, James W. McEvoy III, 61 pp. (Center for Research in Management Science, University of California, Berkeley).

The late James McEvoy undertook surveys of faculty investigators at the Berkeley and Davis campuses of the University of California, seeking to determine how the research investigator functioned from day to day as administrator and manager of a research effort. Investigators were questioned about their degrees of satisfaction or dissatisfaction with the institutional services (accounting, purchasing, etc.) supporting their efforts. McEvoy also gathered and interpreted valuable evidence about internal project management methods and researchers' attitudes toward their research and other academic roles.

Where possible, McEvoy used verbatim the survey questions earlier developed and used in faculty surveys for the Carnegie Commission on Higher Education. Thus, his data can be compared with national data on research investigators. This study, CP-386, is part of the center's series of working papers in management science.

14:1.0/72-1

Beyond Academic Departments, Stanley Ikenberry and Renee C. Friedman, 144 pp. (Jossey-Bass, San Francisco).

This book is a study of research centers—those organizations that grew up in and around universities for the primary purpose of sponsoring research. The authors present some historical information to describe the origins and growth of the various research centers, with a tentative typology of different kinds. The focus of the study, however, is how research centers grew outside of the traditional academic structures of discipline-based departments.

The authors posit that the dominant form of university disciplinary-based research operates in a structure of organization, control, and reward that is not compatible with interdisciplinary research. Research centers, therefore, grew in order to accommodate new forms of research that required different administrative apparatuses for their support: interdisciplinary, contract, and applied research. The authors present evidence that these centers can suffer within academe because they threaten traditional academic channels of control and reward. They conclude with recommendations to strengthen the role of research centers and to minimize some of these negative aspects.

14:1.0/72-2

"Multi and Interdisciplinary Research: Problems of Initiation, Control, Integration and Reward," James W. McEvoy III, *Policy Sciences*, Vol. 3, pp. 201-208.

This article is about the problems of managing a mutli- or interdisciplinary team research project. The author draws on his experience as project director of a large interdisciplinary project concerned with human effects on the Lake Tahoe region of California/Nevada. The study includes a structural analysis of the organization of universities and how it inhibits interdisciplinary research.

The author concludes that the traditions of single-disciplinary research are ineffective in providing management direction for interdisciplinary research projects. He found that projects lacked sufficient integration because each investigator pursued different research questions appropriate to individual disciplines. The differences in disciplinary conventions for evaluating research quality were found to be a major cause for this disunity. Specific suggestions for the conduct and design of interdisciplinary projects, including an analysis of national science policy, are given.

14:1.0/73-3

The Non-Profit Institute, Harold Orlans, 244 pp. (McGraw-Hill Book Co., New York).

In this book, Harold Orlans distinguishes the types of nonprofit research institutes—the Federal research and development (R&D) center, the applied research institute, the operating foundation, the endowed institute, and the project institute—and analyzes such characteristic features of institute organization as income tax status and charitable-organization status, governance structures and personnel policies, and modes of conducting research.

Orlans points to special virtues of the institute form as a way to concentrate scientific attention on a given long-term problem area or on the research needs of a major supporting client. Institutes often compete with universities (which in many instances have given birth to them) and with profit-making corporation. Because instabilities of funds and client relations afflict all but the few fully endowed institutes, some have pursued aggressive diversification strategies, for which graphic examples are discsussed. Orlans argues that since excessive commitments to research by university faculty may have helped to bring about the severe tensions in universities in the latter 1960's independent institutes may be a better vehicle for conducting highly systematic research.

This assessment of research institutes, illustrated by a wealth of case studies, is revealing and provocative in treating the major competitive alternatives to universities as centers of scientific effort.

See: 9:1.3/72-2 **The Home of Science: The Role of the University**, Dael Wolfle.

In this report, sponsored by the Carnegie Commission on Higher Education, Dael Wolfle provides a lucid and well-documented history of the American research university. He shows how the major forces that shaped this development led to the combination of serious policy problems that presently plague the research community.

The first section of the book outlines the development of professionalism in science, the search among scientists for research sponsors, and the beginnings of state and Federal interest in science. The early alliances between research, graduate instruction, and undergraduate education in the major universities are traced. This overview presents the seeds of problems of the uneasy marriage between "pure" and "applied" research, between liberal undergraduate education and graduate education and research specialization, and between academic freedom and accountability.

Wolfle argues that continued heavy Federal financing of university research is necessary to protect quality scholarship. He concludes by offering an agenda of significant policies that research universities must effect if they are to maintain high quality; clarify their own goals to avoid manipulation by sponsors, become more accountable for quality of research programs, and increase interinstitutional coordination and sharing of high risk research.

14:1.0/67

"Universities and Disciplines," Alvin Weinberg, *Reflections on Big Science* 167 pp. (MIT Press, Cambridge, Mass.).

This essay, written by the director of the Oak Ridge National Laboratory, is a chapter from his interesting book on the problems and prospects for "big science" research. The author argues that the disciplinary structure of university research makes university research esoteric rather than exoteric and threatens the relations between the university and an increasingly mission-oriented society. The essay offers coherent definitions of "pure" and "applied" research, with good examples of both kinds. The clarity of these definitions alone qualifies this essay for inclusion in a research bibliography.

The point of the essay, however, is not to enter a semantic debate. Alvin Weinberg is concerned about the social impact of what he calls the "narrow disciplinarity" of the university. He fears that the ecology of the discipline-oriented university encourages excessive purism and specialization in science. He maintains that this then leads to a proclivity among scientists to substitute study for action. Weinberg fears that eagerness to stimulate application can cause university research to be managed as it is in the mission-oriented laboratories, something that he thinks ultimately would be damaging to free inquiry. He argues instead for a broadening of the undergraduate curriculum, which he thinks is necessary to encourage scientists to be synthesizers of knowledge rather than esoteric scholars.

14:1.0/63

The Management of Scientific Talent, Jerome W. Blood, ed., 240 pp. (American Management Associations, New York).

This collection of articles on different aspects of research management was commissioned by the American Management Association in 1963. Articles fall into four major groups: objectives and planning, organization, staffing and compensation, and controlling research work.

The collection is somewhat unique within this bibliography because the authors are managers of research and development in American industry and the articles concentrate on how to manage research in the business environment. The authors tend to concentrate less on theoretical problems encountered in the management of research than on specific approaches to problem-solving. Thus, in an article on recruitment of scientific personnel, Arnold Deutsch presents the corporate manager with a list of environmental factors necessary to create a satisfactory climate for the professional researcher. The strength of this collection is in its succinct approach to research management problems. However, many of the specific techniques cannot be translated to such problems in universities, largely because of the "organized anarchy" of academe. Some of the recipes for successful management presented in this collection could, however, be enormously beneficial to the academic research administrator.

14:1.0/59

American Universities and Federal Research, Charles R. Kidd, 272 pp. (Oxford University Press, London).

This book is an early description and analysis of the impact of heavy Federal funding of research on American universities. Although it is now somewhat dated, it remains the most cogent and incisive analysis of the complex relationships surrounding Federal/university research. Written before the height of massive research funding, Kidd's analysis is all the more brilliant for its ominiscience in predicting areas of the major impact.

Kidd describes the impact of Federal research on many university elements: internal governance, curriculum, planning graduate education, funds management, and individual faculty autonomy. He is particularly insightful in his description of the complex mechanisms that are used to form research policy and the institutional arrangements by which university objectives are reconciled with those of government.

The central thesis of the book is that large-scale Federal financing of research has set in motion irreversible forces affecting the nature of universities. These include change in internal commitment to instruction, de-emphasis of the core undergraduate liberal arts curriculum, changes in financial relations and internal budget processes, changes in parts of the Federal administrative structure, new relations between universities and the Federal Government, and finally, change in the conduct of research itself. Kidd warns that, without careful attention within universities and the Federal Government at the policy level, these forces could combine to damage the quality of universities and university research.

2.0 NATIONAL RESEARCH POLICY, RESOURCES, AND DATA

14:2.0/A

Federal Support to Universities, Colleges and Selected Nonprofit Institutions, FY 19 , National Science Foundation, approx. 166 pp. (NSF, Washington, D.C.).

This annual report to the President and the Congress provides detailed information about Federal obligations to universities and colleges for eight types of activities, including research and development, fellowships, traineeships and grants, and general support for science. The dollar amounts of obligations are listed by type of activity for each individual institutuion receiving funds. However, funding is not differentiated by the basic research/applied research dichotomy used in other NSF publications. Federal obligations to the 100 universities and colleges receiving the largest amounts are cross-classified by agency and by categories of activity.

14:2.0/S-1

Federal Funds for Research and Development, National Science Foundation, approx. 185 pp. (NSF, Washington, D.C.).

This multivolume series provides information on Federal obligations

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for basic research, applied research, and development by type of performer for a base year (generally about 8 or 10 years past) and then more current years. Each volume covers three fiscal years, with data for the earliest of the three years based on actual expenditures and the latest year's figures based on budget estimates. Separate appendix tables give detailed information by type of performer, by agency, and by field of science.

One of the 1980 volumes, volume 28, also shows the geographical distribution of funds by type of performer for 1978 and analyzes trends in the growth of various performers during the 1970-78 period, during which there was a considerable shift in Federal research obligations to universities and colleges relative to intramural Federal laboratories.

14:2.0/S-2

Science Indicators, National Science Board, approx. 300 pp. (NSB, National Science Foundation, Washington, D.C.).

The National Science Board *Indicators* studies, published every 2 years define indicators of the national and international health of the U.S. science establishment an provide quantitative evidence of composition, trends and problems.

The study shows the sources and distribution of research resources and campares the research role of colleges and universities with othe types of research-producing organizations. A Delphi experiment is reported, showing experts' views of what areas of social importance should be addressed scientific research and what resources and developments of scientific capability are needed.

The 1974 study portrays in expanded detail the international position of American science and technology, and reports updated information on science funding, organization, and personnel. Trends in science and engineering personnel, by disciplines and types of employment, are analyzed in considerable detail, together with trends in the production by colleges and universities of newly trained personnel.

The 1976 study shows the continuing slippage of Federal research support and it consequences, and also carries on the main categories of indicator presentation used in the two earlier studies. Outputs of industrial research and development, including patented inventions and categorization of major innovations, receives new expanded treatment.

For 1978, the NSB set up an internal task force and used a number of external reviewers to assess the 1976 Indicators and make suggestions for improving the series. As a result, the 1978 report includes more interpretation and analysis of data. Primary policy questions are identified, and a comprehensive index has been added. The 1978 volume also shows an increased emphasis on alternative interpretations of the data and the limitations of the data, as well as more reference to ther publications are also included.

The 1980 edition of *Science Indicators* will be published in the fall of 1981.

These studies, with their analytical commentaries and wide-ranging data, provide indispensable background for the analyst of the research organization, its efficiencies, and its impacts.

14:2.0/81-1

Postdoctoral Appointments and Disappointments; Report of the Committee on a Study of Postdoctorals in Science and Engineering in the United States, Commission on Human Resources, National Research Council, 412 pp. (National Academy Press, Washington, D.C.)

This monograph follows up a well-known study of postdoctorals, *The Invisible University*, which was issued more than a decade ago. Using new survey data collected specifically for this evaluation and included in the monograph, the Committee on Postdoctoral has assessed the current status of postdoctorals and arrived at several recommendations for the Federal Government and the universities.

Early chapters in the report cover the historical background, the changing employment patterns and career paths of young scientists, and the use of the postdoctoral path to careers in research in each major science field. Then, the issues are examined from the perspective of the postdoctorals' contributions to research. Prime issues that the Committee uncovered through the survey and other evidence were: (1) a lack of prestige and research independence in the current day postdoctoral appointment; (2) a mismatch between the important role of the postdoctoral in actual research performance and future career opportunities in research; (3) a lack of recognized status of the postdoctoral in the academic community; and (4) the underutilization of women and minorities in postdoctoral research.

The Committee offers four recommendations for this period of significant transition in postdoctoral education. First, the Federal Government should establish 250 new, portable, 2-year postdoctoral fellowships per year. These should have competitive salaries and be accompanied by some funds for research expenses. Second, the Federal Government should establish 50 additional fellowships per year, like those described above, but earmarked for minority Ph.D.'s. Third, each university that has nonfaculty research personnel should establish a standing committee on postdoctorals and other nonfaculty doctoral research staff. This committee should review the situation of these researchers and recommend appropriate institutional policies. Fourth, the National Science Foundation should expand its longitudinal data gathering to include a specific survey on young scientists' and engineers' career decisions.

An appendix to the report includes 180 pages of statistical tables.

14:2.0/81-2

"Science and Technology in the White House, 1977 to 1980," Parts 1 and 2, Frank Press, *Science* Vol. 211, January pp. 139-145 and pp. 249-256.

Frank Press served from 1977 to 1981 both as science adviser to the President and as director of the Office of Science and Technology Policy (OSTP).

In Part 1 of this article, he describes the organization and functions of OSTP during the Carter Administration. Press reports that to strengthen U.S. science and technology, OSTP undertook to stimulate greater Federal support for research and development, recognizing the Government's dominant responsibility for funding basic research and certain high-priority areas of applied research and providing additional incentives to private industry for commercial applied research and development. Basic research support had declined in constant dollars from the late 1960's to the mid-1970's, but in the Ford and Carter Administration, real-dollar increases were achieved.

OSTP participated actively with the Office of Management and Budget and other Federal agencies in the budgetary evaluation of all programs and projects having a significant scientific or technological aspect, from microelectronics and the space shuttle to the control of toxic substances. OSTP also advocated greater Federal involvement and planning in the provision of equipment, facilities, and manpower for the R&D process. Other major thrusts of OSTP included: (1) a systematic effort to push more intensive industrial innovation as a means of revitalizing the U.S. economy; (2) enhancing cooperation between government, industry, and the universities; and (3) reforming the regulatory process by improving analytical efforts that serve as a basis for regulation and by seeking better coordination among Federal agencies.

In Part 2, Press discussess several areas of more particularized activity in which science and techology have a role. He helped to arrange the bilateral agreements with the Peoples' Republic of China for cooperation in science and technology, and OSTP provided staff to formulate joint R&D efforts with Japan in large-scale energy research and other key areas. Press also discusses OSTP's interagency efforts in connection with national policy formation and program priority-setting for national security, space policy, energy and the environment, health policy, and agricultural rsearch. Finally, OSTP spearheaded the formation of advisory long-range and planning mechanisms.

14:2.0/80-1

Academic Science: 1972-1977, National Science Foundation, 67 pp. (NSF, Washington, D.C.).

This publication is the first in a planned series of consolidated biennial analyses of academic R&D expenditures, the utilization of scientists and engineers, and the characteristics of the graduate science engineering student population. The report is based on three NSF surveys and combines material that in prior years had been published separately. Some of the financial data can be found in other NSF sources (see 14:2.0/5-1), but not all of the expenditures data are readily available elsewhere.

The one-volume format makes for a very useful compendium of information about both dollars and people involved in academic R&D over the 6- year period.

14:2.0/80-2

America's Technological Slip, Simon Ramo, 296 pp. (Wiley Interscience, New York).

In this volume, Simon Ramo, known for his wide-ranging achievements in applied science and industrial innovation, provides a thoughtful assessment of the nation's "slippage" in science and technology. Early chapters give some background reasons for the slippage that Ramo says has occurred. He then devotes a chapter to each of a series of problem areas: nuclear energy, synthetic fuels, conservation, urban transportation, environmental protection, and the many current and future applications of the computer. The final section of the book covers international problems, technology transfer, and the needs for deeper commitment to education. Ramo concludes with a grim scenario of the deterioration both in the United States and in its surrounding world that could occur, and also points out how this can be averted.

The book rests on Ramo's wide personal experience, judgment, and observation rather than on the collection and systematic analysis of new, detailed evidence about the problems of technology, productivity lag, and deadlocks in social policy.

14:2.0/80-3

The Demand for New Faculty in Science and Engineering, Michael McPherson, ed. 243 pp. (National Academy of Sciences, Washington, D.C.).

In 1979, the Committee on Continuity of the National Research Council's Commission on Human Resources convened a workshop of specialists in forecasting demands for scientists and engineers. The Committee's objective was to assess the merits of these forecasts and projection so that it could have a reliable basis for its policy analysis and recommendations.

This volume includes technical papers presented at that workshop or stemming from it. These include: (1) a presentation of the methodology and techniques for its projections, by the National Science Foundation's Division of Science Resources Studies; (2) a comparison of several different modelling approaches, by Charlotte Kuh and Roy Radner; (3) a comparison of the Radner-Kuh and NSF projections, by Donald Hernandez; (4) an estimate of the response-functions for the faculty job market using econometric technqiues, by Richard Freeman; (5) a compilation of his work on future demand for physicists and other scientists, by Lee Grodzins; (6) a report on the problems of moving age-distribution over time in several broad fields, by Charlotte Kuh; and (7) an assessment of the relationship between the calendar age and productivity of the scientist.

In a final paper, Frederick Balderston and Michael McPherson examine the extent of uncertainty in these long-range projects and seek to assess their value as a basis for manpower policy formulation.

14:2.0/80-4

Funding Mechanisms: Balancing Objectives and Resources in University Research, National Commission on Research, 41 pp. (NCR Attn: Cornelius J. Pings, University of Southern California, Los Angeles).

In this report, the National Commission on Research surveys the current system of funding mechanisms for goverment-sponsored university research, identifies certain problems, and presents its conclusion and detailed recommendations for improvements in the system. The specific difficulties identified by the Commission include equipment inadequacy, erosion of institutional support for research in the humanities and social sciences, the lack of continuity and stability of funding, cost-sharing requirements, and the administration of indirect cost reimbursement. The Commission also draws attention to the related issue of the evolving role of university-based research centers and the relationship of these centers to the university's structure.

The Commission's chief recommendations relate to adapting present funding mechanisms and improving priority-setting strategies to solve the problem of research equipment obsolescence, longer appropriation cycles and more continuity for agencies that support basic research, and new funding mechanisms to sustain the research capacity of universities—i.e., general research capacity support equal to between 1 and 3 percent of total Federal research support. Experimentation with grants-in-aid managed at the local level, decoupling of indirect and direct cost considerations, and elimination of most cost-sharing requirements are also included in the Commission's recommendations.

14:2.0/80-5

National Patterns of Science and Technology Resources, 1980, National Science Foundation, 72 pp (NSF, Washington, D.C.).

This useful document brings together 50 pages of statistical tables on national science and technology research resources—governmental, university, and private—for projects of science and engineering personnel.

The first portion of the report gives a narrative perspective and analysis of the nation's research and development resources, both fiscial and human. Numerous worthwhile breakdowns are used: basic vs. applied research; Federal vs. industrial R&D; and R&D both by provider of funds and by type of performers of the work. The second section of the narrative summarizes the main features of the role and impact of research and development in the national economy.

14:2.0/80-6

Research Personnel: An Essay on Policy, National Commission on Research, 26 pp. (NCR, Attn: Cornelius J. Pings, University of Southern California, Los Angeles).

This report, which deals with the national need for an ample pool of research scientists, is different from the other reports by the National Commission on Research in its absence of specific recommendations to the universities, the congress, and the Federal agencies. This report is more tentative in tone, reaches few conclusions, and ends with an agenda for future discussion—13 questions directed toward the government and the universities on the theme of ensuring sufficient quantity and quality of research personnel for the nation's future security and well-being.

The Commission expresses particular concern about the unplanned manner in which both universities and government research facilities are changing, and urges the early consideration of its agenda by the President, the Congress, Federal agencies, universities, and industry.

14:2.0/80-7

"Science and Technology Policy: Perspectives for the 1980's," Herbert I. Fusfeld and Carmela S. Haklisch, eds., 285 pp. (*Annals of the New York Academy of Science*, Vol. 334, New York).

This volume is based on papers and discussions presented at a conference in December 1979. The initial paper, "Overview of Science and Technology Policy—1979," by Fusfeld, is a very thoughtful and insightful discussion of current policy concerns related to the mechanisms by which science and technology can contribute to solving particular problems of society and the economy. Fusfeld finds general agreement that there will be increasing actions by government to bring science and technology to bear on problems in the civilian sector—i.e., areas other than the military and space programs. This implies a more active government role in civilian sector

R&D and a new emphasis on defining the proper governmental role for supporting technical activities directed toward the civilian sector.

Fusfeld's essay sets the stage for the four sets of papers that follow: the first deals with major areas of concern in science and technology policy; the second focuses on that policy in selected technical fields (food and nutrition, materials, energy, etc.); the third deals with the interaction of science and technology policy with areas of national concern; and the forth covers recommended guidelines for science and technology policy. A concluding paper, authored by William D. Carey, reviews the issues and summarizes the areas of consensus regarding a focused science and technology policy.

See: 12:1.3/80 **A Program for Renewed Partnership: A report of the Sloan Commission on Government and Higher Education,** Sloan Commission.

In chapter 6, "Federal Support for Academic Research," of this volume, the Sloan Commission finds evidence of four current trends that it believes run counter to the best interests of both the country and fundamental research: (1) pressure to even out the distribution of research dollars: (2) tendencies to change the distribution of the dollars in the direction of more applied research (directed toward specific social needs); (3) increasing financial oversight; and (4) increasing congressional reluctance to fund research at a sufficient level to permit a modest real growth.

The Commission defends the peer review system and the present distribution of funds, and the appropriateness and desirability of Federal support for basic research. However, it is greatly concerned with the effect on the research process of the sometimes excessive Federal financial oversight, and emphasizes the significance of a modest real growth in academic research funds in order to ensure funding for new ideas.

The Commission recommends that responsibility for financial oversight of all academic research grants be put in the hands of a newly created Office of Inspector General, attached to the National Science Foundation (NSF) but reporting directly to the National Science Board. In addition, it urges that the NSF and the National Institutes of Health join in funding about 1,000 portable postdoctoral fellowships and that other Federal agencies create about 300 new National Research Fellows, each carrying support for 5 years of research. Finally, it recommends shifting some project resources, equal to about 7 percent of the direct costs of each research grant and contract, to academic libraries and other general research support.

14:2.0/78

The State of Academic Science: Volume 2-Background Papers, Bruce L.R. Smith and Joseph J. Karlesky, 190 pp. (Change Magazine Press, New Rochelle, N.Y.)

This volume on the state of academic science consists of five essays commissioned to provide background for Smith and Karlesky's larger work (14:2.0/77-2). These essays, together with an introductory chapter by the editors, present an excellent profile of the major issues that presently confront American academic science. The depth to which the subject matter is explored in each essay and the timeliness of the materials warrant their indepth annotation in this bibliography.

In "Forces Affecting the Research Role of Universities," Dael Wolfle presents a synopsis of the major forces affecting the research role of American universities. A review of data from the mid-1960's to the present shows significant changes in both the absolute level and the type of financial support, as well as the imposition of more external controls on the conduct of research. From the mid-1970's, funds for research were found to have declined 25 percent for each full-time-equivalent scientist and engineer employed in universities—even though the university portion of the total national research effort increased slightly. Wolfe also reports that faculty members had to shift fields of research and find new areas of support. Interest in applied and targeted research also increased considerably, while external controls designed to increase public accountability were imposed on all aspects of research. Wolfe finishes by discussing the impact of the funding changes on the future quality and diversity of research. He concludes that universities that were not able to build quality research programs during the sixties will likely never achieve high stature, although already vigorous programs of demonstrably high quality are likely to maintain good research programs.

In "The Changing Relationships: Universities and other R&D Performers," Walter S. Baer describes major trends in research funding over the past 20 years, focusing on the changing role of university research. Baer relies heavily on the National Science Foundation's annual reports and summarizes data on overall support, support to various types of research and development agencies (universities, Federal in-house laboratories, federally funded research and development center, industrial firms, and other), sources of funds for research, and patterns of support to basic and applied research. He analyzes changes over the period in the research role of the different institutions and the types of research conducted in them. Baer concludes that universities have strengthened their hold (vis-a-vis other R&D performers) in the conduct of basic research, but that other agencies have emerged as significant competitors for support of applied and policy research. Baer has done a major service to the research planner in this paper by highlighting the major policy issues through careful examination of funding trend data.

In "Targeted Research: An American Tradition," Carl M. York gives a broad historical overview of the organization and funding of American research from the time of the American Philosophical Society of Benjamin Franklin to the present. York focuses especially on the changes in Federal-university relations during the past decade and offers some evidence that funding for targeted research (defined as "a direct attack on a clearly specified problem") may threaten the long-term quality of university research. York sees the following as major threats: financial controls leading to lack of discretionary funds, personnel problems, and encroachment of Federal regulations on internal university policies.

In "Effects of Recent Trends in Graduate Education on University Research Capability in Physics, Chemistry and Mathematics," David W. Breneman explores the thesis that downward trends in doctorate enrollment and production will have a negative effect on research capability and, ultimately, on university quality. Data showing enrollment trends in the fields of physics, chemistry, and mathematics for those institutions that were rated in the 1970 American Council on Education (ACE) study of graduate education are presented. Breneman also reports on a series of interviews that he conducted with university faculty to gain insights into the qualitative impact of these enrollment trends. He found that enrollment decline tended to be most severe at departments that were rated lower in the ACE studies. The short-term impact on research capability caused by lack of graduate research and teaching assistants differed by field because of different traditions of graduate research and undergraduate teaching needs in these fields. Fields that did not rely on graduate research assistantships to a substantial degree (such as mathematics) were found to be better able to reduce enrollments than those that did. All fields, however, tried to maintain levels of enrollment sufficient to retain teaching assistants so that faculty research time would not be severely threatened.

Breneman concludes that current research capability in physics, chemistry, and mathematics has not been seriously undermined at leading institutions by the changes occurring in graduate education from 1968-75. He further concludes that present doctorate production is "adequate" to meet long-term research manpower needs. The serious problem that he discovered, however, is not caused by doctorate production but by the prospective lack of tenured-position vacancies in nonexpanding departments caused by the current age distribution of university research faculty. Lack of opportunities for scholarly appointments for young scholars poses a critical threat to the long-term vitality of the research enterprise.

In "Acountability and the Research Universities," Sanford A. Lakoff offers an overview of the problem faced by research universities through increased pressure for accountability, as well as some constructive ways to address the issue. First, Lakoff describes the symptoms of increased pressure for accountability: increases of funds for targeted research and decline of general institutional grants, and threat to withdraw research funds for failure to conform to admissions, employment, or other regulations. These factors imply an ominous erosion of academic freedom as they move the authority for decisions outside of the academy. The problems of improving academic accountability are especially difficult because of the unique problem in research caused by the lack of a predictable and identifiable path of successful performance. Lakoff argues that, on the whole, state and federal officials have been supportive and have taken the need for different standards of accountability for academic institutions into consideration. He maintains that universities need to take positive steps to improve the means of managing resources, esepcially in accounting, inventory management, and recording of indirect costs.

14:2.0/77-1

Research Universities and the National Interest: A Report from Fifteen University Presidents, 140 pp. (Ford Foundation, New York).

In this volume, 15 university presidents contend that central parts of the natural work of research universities are of critical importance to the quality of the security of American life and that there is no source of supplemental support at the required level outside of the Federal Government. Their needs are considered under four headings: basic scientific research, graduate education, research libraries, and international studies.

In the section on basic scientific research, the presidents argue for a broader approach by the Federal Government and offer several alternatives to current funding mechanisms and practices. They also call for a significant increase in individual grants to scientists at all levels—graduate students, junior faculty members, and senior professors. However, they explicitly reject the suggestion of some that limited number of institutions be designated "national universities" and given direct institutional grants.

For an opposing point of view on institutional grants, see Gerard Piel, "Federal Science Policy and Support of Autonomous Universities: A Modest Proposal," in William T. Golden, ed. *Science Advice to the President*, Pergamon Press, New York, 1980.

14:2.0/77-2

The State of Academic Science: The Universities in the Nation's Research Efforts, Volume I - Summary of Major Findings, Bruce L. R. Smith and Joseph J. Karlesky, 250 pp. (Change Magazine Press, New Rochelle, N.Y.).

This book is the most complete recent treatment of the problems and prospects of university research. The review is based on a series of site visits and interviews at a group of major research universities, as well as an investigation of recent literature to determine the role of university research in the nation's research effort and to diagnose the potential for the continued health of university research.

The authors provide a concise summary of current trends in the support and performance of academic research, including funding trends and shifts in support of research by field. The changing relationships between universities and other research and development performers and the implications of these changes for future university research are discussed. The authors also examine the current state of research (funding trends, graduate enrollment, and manpower trends) in the fields of chemistry, physics, mathematics, life sciences, and engineering. Finally, the authors summarize the major planning issues that jeopardize the health of university research: supporting resources, manpower problems, indirect costs, and state/university relations.

The study is limited to the extent that the authors have elected to focus on sponsored research and have not explicitly addressed the impact of sponsored research on internal university governance. This is a minor shortcoming, however, as this study is far and away the most comprehensive treatment of this extremely broad and difficult area presently available.

14:2.0/76

Science at the Bicentennial: A Report from the Research Community, National Science Board, 154 pp. (NSB, National Science Foundation, Washington, D.C.).

The National Science Board undertook, for the Bicentennial, to assemble the expert judgments of people in four "sectors"—universities, industry, government laboratories, and independent research institutes—about the problems of science in America. Following a brief historical introduction on the organization of American science, the report defines and interprets four themes: dependability of research funding, vitality of the research system, freedom in the research system, and (from a review of previously conducted public opinion polls) public confidence in science and technology and their value to society.

The Board found that respondents in all four sectors of the science establishment reported strikingly similar concerns about the status of science in American society, though the importance attached by the various sectors differed. Increased continuity and stability of research funding were felt to be vitally necessary, and increased funds were judged to be needed by universities, government laboratories, and research institute spokesmen, while industrial research spokesmen pointed to the need for generally greater capital formation and for improved incentives. All of the respondents also considered a lack of national research policy and priorities to be a serious issue.

The reduced appeal of careers in science for the ablest talent and the lack of career opportunities in basic science were important issues regarding the vitality of the research system. Pressures toward applied research instead of unfettered basic inquiry, as well as rapidly growing bureaucratic and "accountability" controls, were reported by all four sectors as threats to traditional research freedom. Specific negative attitudes in the executive branch and in congressional committees were regarded as a significant immediate problem for science.

The final section of the report contains a review of previously conducted public opinion polls on science that is of particular value to the university research administrator. This review, which includes descriptions of different major surveys on the subject, shows a clear general deterioration of public esteem for public institutions. However, the surveys show a high degree of public respect for scientists as experts, combined with the widely held perception that scientists are "strange people." The review suggests several options available to university administrators to improve public perception of science.

14:2.0/74

"Science and Its Public: The Changing Relationship," *Daedalus*, American Academy of Arts and Sciences, Vol. 103, No. 3, Summer, 224 pp.

Of a number of interesting essays in this volume, those most pertinent to higher education's concerns with research and its organization are: Don K. Price, "Money and Influence: The Links of Science to Public Policy"; David Z. Beckler, "The Precarious Life of Science in the White House"; Emilio Q. Daddario, "Science Policy: Relationships Are the Key"; and Amitai Etzioni and Clyde Nunn, "The Public Appreciation of Science in Contemporary America."

These articles display and interpret important facets of the public and political environment of the science establishment, including academic science. Price discusses some of the paradoxes of scientific freedom in relation to the sources of funds and offers judicious suggestions for preserving need autonomy in a troubled political environment. Beckler and Daddario offer detailed historical insights from their own Washington experience concerning effective advocacy for the needs of science. Etzioni and Nunn portray, from polls and other evidence, important ambivalences toward science, its methods, and its social impacts.

14:2.0/73

Science and the Evolution of Public Policy, James A. Shannon, ed., 280 pp. (Rockefeller University Press, New York).

This collection of articles resulted from a lecture-seminar series funded at Rockefeller University through the Commonwealth Fund and the National

Science Foundation. The purpose of the series was to bring together scientists and research administrators to give their perspectives on different aspects of Federal funding and research policy. The articles are organized into five sections: The purpose and utility of science, development and goals; the university; the Federal support of science, and general support of science. The materials on purpose and utility of science and problems of developing goals and priorities are of especially high quality. The perspectives offered concerning the health of research and the prescriptions given to ensure its continued well-being are overwhelmingly those of the academic scientist.

The books pays particular attention to the problems encountered by the lack of precise definition of most research policymaking terminology and highlights the need to clarify these definitions before a sound research policy can be developed. This book useful, therefore, to those who want to become quickly acquainted with the range of opinion and the scope of debate on these philosophical and semantic matters.

See: 9:3.0/69 **The Invisible University: Postdoctoral Education in the United States,** National Research Council.

This volume reports on the major study—in the still-expanding phase of science budgets and graduate enrollments—of postdoctoral education and the role of the "postdoc" in research and teaching.

Starting with standard definitions, the study relied on questionnarie surveys to obtain evidence from current postdocs about their backgrounds, activities, and support. A separate survey covered those who could report on the previous impact of their postdoctoral experience. Faculty, departmental, and institutional questionnaires elicited information on the postdoc rule, the importance of postdocs to faculty and departments, and problems of institutional policy concerning postdoctoral education.

While a few outstanding young scientists had postdoctoral opportunities each year between the wars, steep acceleration of postdoctoral education occurred in tandem with the expansion of Federal funds for support of research following World War II. Postdoctoral education, like research funding, proved to be highly concentrated in a subgroup of prominent universities and quite concentrated in the laboratory sciences, mathematics, and medicine.

The study concluded that postdoctoral experience has become nearly essential to establish readiness for good academic appointments and that postdoctorals have come to assume a crucial role in the conduct of academic research in the sciences.

14:2.0/68

Sciences Policy and the University, Harold Orlans ed., 344 pp. (The Brookings Institution, Washington, D.C.).

This book contains a series of papers resulting from a seminar sponsored by the Brookings Institution on research and research policy. This collection is unique in that it presents both the papers on different aspects of policy formation given to seminar participants and the editor's synopsis of the discussion that followed. These discussions (where a high degree of candor seems to have prevailed—and where individual identities are omitted) are among the most interesting of the literature on research and research management. It is not possible to summarize them succinctly, because the only fair generalization that can be made about them is that there is no uniformity of opinion on research policy among the profession. The topics touched upon in the seminars, however, give a rich menu of research policy problems—Federal support for functions *other than* research in universities, how to support "big science," and how to plan and budget for research in universities. Two distinctive contributions of the book are attempts by members of the seminar to offer criteria by which funds for researchers can be "rationally" allocated and criteria by which research productivity can be evaluated.

3.0 UNIVERSITY-GOVERNMENT-INDUSTRY RELATIONSHIPS IN RESEARCH

14:3.0/81

"The Indirect Costs of Federally Supported Research," Kenneth T. Brown, *Science*, Vol. 212, April 24, pp. 411-418.

Drawing on data about National Institutes of Health (NIH) funding of university research and on his experience as a faculty research investigator and NIH panelist, Kenneth Brown recommends that a uniform indirect cost rate be adopted for faculty/initiated research grants and applied to all universities. He argues that the uniform indirect cost rate would increase efficiency in research administration by eliminating the opportunity to expand administrative costs and then negotiate a higher indirect cost rate; that it would reduce antagonisms between university research faculty, who want to minimize dollars "lost" to research through indirect cost charges, and senior administrators, higher indirect cost rates; that it would simplify relationships and reduce conflicts between research universities and Federal funding agencies; and, most important, that it would increase the soundness of funding review of research and (he hopes) reserve more of the total funding for the actual conduct of research.

Brown begins by showing NIH's research funding history from 1966 to 1979, with steady fall in direct costs from 87.7 percent to 73.3 percent of

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total funding. Total NIH funding for university research grew by a factor of 8 during this period. In constant 1966 dollars, however, direct costs for research increased by only 35 percent, whereas indirect cost increased during this 13-year interval so that the 1979 figure was 350 percent of the 1966 base. He also shows the widely differing indirect cost rates of the 20 universities receiving the largest amounts of NIH funding.

Brown points out that in the NIH peer review process, both the scientific merits of the proposal and the attendant budget are evaluated, and that budget cuts are often made by the review panels. University practices differ, however, on what is considered to be "direct costs," and the peer reviewers look only at these direct costs. Indirect cost rates are determined by a wholly separate negotiating process. The effect of the indirect cost rates is to take a large portion of the total number of research dollars provided by the fixed line item allocated to each NIH program.

14:3.0/80-1

"Stengthening University-Industry Interactions," Walter S. Baer, 34 pp. (Rand Corporation, Santa Monica, Calif.).

In this informative and thoughtful paper (opinion paper no. 120), the author takes as his starting point that university-industry interactions are only the means for achieving certain ends. In this connection, he clarifies possible objectives, discusses the current state of knowledge about the policy issues involved, and presents various government policy options.

There are at least two recurring themes throughout the paper: first, the need to take into account the differing incentive structures of the two sectors; and second, the need to design government policies that do not hinder the free flow of information, ideas, and people between the other two sectors. In many cases, Baer suggests, the best government policy might be "no policy."

Baer emphasizes the importance of "defining the goal" in designing sensible policies or programs in this area, presents a matrix of both primary and secondary objectives and various means of promoting interaction, and briefly discusses three different types of arrangements for university-industry interactions. A final section of the paper outlines a number of policy options (tax credits, generic technology centers, small business programs, etc.), some of which exist as prototypes or have been instituted on a small-scale basis. He concludes that a case can be made for modest additional efforts by the Federal Government to encourage university-industry interaction, but that such interaction does not constitute an innovation "breakthrough."

14:3.0/80-2

Industry and the Universities: Developing Cooperative Research Relationships in the National Interest, National Commission on Research, 40 pp. (NCR, Attn: Cornelius J. Pings, University of Southern California, Los Angeles).

The theme of this report is that improved university-industry cooperative research can produce significant benefits for the nation. The substance of the report is the actions that might be taken by the government, by industry, and by the universities to bring about this improvement. The Commission briefly outlines the benefits and hazards of cooperative research relationships to universities, industry, and the public; sketches the roles and responsibilities of each of the partners; and presents six alternative approaches for cooperative research relationships.

The Commission makes several recommendations for actions to be taken by each of the three parties concerned. For the universities, it recommends an examination of their administrative structure and policies in this area so that such arrangements "facilitate cooperation while protecting the academic research environment." The National Science Foundation's Industrial-University Cooperative Research Project Program is cited as a relevant model of a direct university-industry cooperative research relationship. The Commission also recommends that the Federal Government permit universities to retain title to inventions developed under federally supported research.

The conclusions and recommendations are often rather general in nature and broad in scope. However, the report's subject and tone indicates the growth in the academic community of more favorable attitudes toward and interest in establishing close university-industry links.

14:3.0/80-3

Research Accountability: Restoring the Quality of the Partnership, National Commission on Research, 33 pp. (NCR, Attn: Cornelius J. Pings, University of Souther California, Los Angeles).

The National Commission on Research is a private nonprofit organization established to examine the relationships between government agencies and universities involved in research. The Commission was founded in 1978 by the Ameircan Council on Education, the American Council of Learned Socieities, the Association of American Universities, and the National Academy of Sciences, the National Association of State Universities and Land-Grant Colleges, and the Social Science Research Council. The Commission has published four reports (14:2.0/80-4 and -6, and 14:3.0/80-2 and -3) that examine the process by which the Federal Government supports academic research. Three of four also propose changes in that process and clarify the lines of ccange where there is substantial consensus in the academic community and where there is not.

In this report, the Commission recognizes the strain that accountability places on the relationship between the government and universities in their partnership for research. It examines the issues in dispute that center on accountability and the changes that could be made in the present accountability system make the relationship more harmonious.

The Commission's basic conclusion is that both the government and the universities could do more to solve the accountability problem than they are doing at present—the universities by improving their self-regulation and the government by cutting down on unnecessary regulation. However, the Commission also recognizes that the management tools now available for these tasks are inadequate and that new approaches are needed. It makes five recommendations for tailoring accountability requirements to the nature of research activity, and five more for providing means for increased flexibility and the maintenance of accountability. One of its recommendations is the construction of an option, analagous to the standard deduction in income tax calculations, that would allow universities to charge activity that is treated as indirect costs under sponsored agreements. Another recommendation—that the agencies delegate to the universities more authority to make budgeting and management decisions under sponsored agreements—is the subject of some recently devised National Science Foundation experiments. In addition, the Commission suggests the creation of a new, independent forum to " . . . provide a nonadversarial setting for persons from the public, Congress, the universities, and federal agencies to watch over the government-university relationship and guide its evolution.

14:3.0/80-4

"Research, Innovation, and University-Industry Linkages," Denis J. Prager and Gilbert S. Omenn, *Science,* Vol. 207, January 25, pp. 379-384.

The authors of this article, former officials of the Office of Science and Technology, examine the status of and potential for formal university-industry research partnerships. They discuss some of the incentives and some of the barriers to the establishment of these relationships, give examples of successful consortia and partnerships, and analyze ways in which the Federal Government might aid the growth of cooperation. The options they cite include aids in improving communication between universities and industry, direct Federal support of joint projects, and the creation of certain tax incentives.

The authors conclude that "The time appears to be ripe for major improvements in university-industry relationships in science and engineering, . . .and that the federal government can play a facilitating role in fostering this cooperation primarily by providing incentives and removing disincentives to such interaction." A great deal of information has been packed into this short article.

14:3.0/80-5

Review Processes: Assessing the Quality of Research Proposals, National Commission on research, 22 pp. (NCR, Attn: Cornelius J. Pings, University of Southern California, Los Angeles).

This paper reports on a study by the National Commission on Research of the review process for distribution of Federal research funds to university-employed scientists. The Commission concludes that while the peer system of review is not immune to faults, the system has worked well and has been of great importance in determining the success of science in the United States.

However, the Commission recommends that the specific review systems used by the different funding agencies be examined periodically to ensure that they are working effectively and equitably. It further recommends retrospective studies of the effectiveness of the review processes in assessing the quality and impact of the research supported; experimentation in which peer reviews would rate several aspects of proposals, as well as provide overall ratings; and clarification by the funding agencies regarding the underlying scientific and policy considerations that govern their funding decisions.

14:3.0/79-1

Research Excellence Through the Year 2000, Commission on Human Resources, National Research Council, 241 pp. (National Academy of Sciences, Washington, D.C.).

The National Research Council formed a Committee on Continuity in Academic Research Performance to recommend how to offset the anticipated decline in the number of new junior faculty appointments in university science departments. This report of the Committee reviews the projections of new faculty hiring under the anticipated circumstances and assesses the role of young faculty in the conduct of academic science. It also examines a number of policy alternatives for making a better place for the young scientific researcher, and it recommends a relatively modest program for Federal funding of multi-year research appointments as substitutes for the regular faculty positions that cannot be expected to be available in the 1980's.

14:3.0/79-2

"Federal Regulation and the Natural Sciences," Robert L. Sproull, pp. 71-94, in Paul Seabury, ed. *Bureaucrats and Brainpower: Government Regulation of Universities*. (Institute for Contemporary Studies, San Francisco, Calif).

The author has had many years of experience both as scientist and administrator; and he brings that experience to bear on his analysis of the change from the early postwar cooperative era of government-university partnership to the present era of uneasy and inefficient relations. In addition, he analyzes the effects of various types of government regulations, (e.g., fiscal, safety-related, patent related). He is particularly worried about the potentially damaging effects of the 1978 Ethics in Government Act, on recruitment of scientists into the government, and ". . . wonders why the U.S. is willing to permit clumsy regulation to threaten its precious advantage of world leadership in natural science."

14:3.0/79-3

Regulation of Scientific Inquiry, Keith M. Wulff, ed., 222 pages (Westview Press, Boulder, Colo.).

This wide-ranging and useful volume presents the papers given at a symposium sponsored by the American Association for the Advancement of Science concerning regulation of scientific research. It also includes a few additional papers to widen the volume's coverage of relevant topics.

Part I defines the domain of regulation of scientific research in papers by Andre Hellegers (on ethical dilemmas in medical research) and Barry Casper (on value conflicts in restricting scientific inquiry), in a summary of a lively panel discussion, and in additional papers by Hans Jonas, Robert Sinsheimer, and Kurt Bach. Part II, on recombinant DNA research, includes papers by U.S. Senator Adlai Stevenson and Harold Green and Philip Handler's statement on this subject to a U.S. Senate committee. Part III addresses First Amendment rights, in papers by Thomas Emerson, Harold Green, and David Newburger. Part IV deals with regulations relating to human subjects in papers by Albert Reiss (on problems of consent), Lee Robins (on privacy and longitudinal studies), Eliot Freidson (on confidentiality), and Han Mauksch (on regulation of research as factors of accountability).

A concluding section provides Dael Wolfle's comments on the problem area and Wulff's assessment of the policy issues of regulation of research.

14:3.0/78

State Policy Research at the University of Illinois, Samuel K. Gove and Richard A. Zollinger, ed., 129 pp. (University of Illinois, Urbana).

This volume presents the background papers, speeches, and final report of the University of Illinois President's Assembly, whose purpose was to explore the interaction between universities and the agencies that create public policy. In the first paper, Marilyn Flynn and James Stukel discuss the relationships between the university and state-sponsored research from the faculty perspective. They explain the rationale for the collaboration, the characteristic outcomes of state-sponsored research, problems associated with administration and indirect overhead charges, and some current issues (i.e., Should university researchers be allowed to publish their results without review by state sponsoring personnel?). Noel Ebrahim comments on how the research needs of the executive branch of state government can be met by state universities, saying: "The academic community's traditional tendency to eschew politics and state government is the primary obstacle impeding the academic's accessibility to the political arena."

John W. Ahlen discusses existing and potential linkages between universities and state government from the perspective of the legislative science staff. He cites a number of existing and potential relationships to improve interaction. A paper by Michael Belletire continues this theme. "Lessons From a Bureaucrat: Or, If You Want To Help Me, Mind My Mandate," is Alexander Schmidt's topic, and he explains how a bureaucrat in the health field thinks and what he wants when he turns to a university. Roy Wehrle presents an interesting history of the Illinois Institute for Social Policy and why it failed. As some of the causes he cites the facts that the prime functions of the Institute were never clarified or limited, that expectations for policy results were excessive, and that views held by the governor's staff as to what would improve welfare were simplistic and incorrect.

The "Illinois: Today and Tomorrow" project to provide state leaders with a picture of major state problems as identified by residents is discussed by Rabel Burdge and Ruth Kelly. They believe their findings are having an important impact on public policy; however, they caution that widespread adoption by the state government of university input will require many altruistic faculty members providing quality research on a continuing basis.

14:3.0/77-1

The Ethics of Teaching and Scientific Research, Sidney Hook, Paul Kurtz, and Miro Todorovich, eds., 212 pp. (Prometheus Books, N.Y.)

This volume represents an attempt to clarify the issues involved in some recent controversies about the legitimacy of the chosen research area and the chosen methods of research. The papers included are based on the proceedings of a conference of University Centers for Rational Alternatives and do not constitute a really coherent approach to the subject of science and ethical research. However, the personal account of a scientist whose research proposal was rejected on ethical grounds is thought-provoking (as well as a little frightening), and a Hibbs-Hook debate highlights the gulf in viewpoints on the ethics of research that often exists between the engineer and the philosopher. In the final paper in the volume, Paul Kurtz emphasizes the need for greater public enlightenment about the benefits to society of freedom in scientific inquiry and research. He suggests that, in our contemporary society, limits to that freedom are more likely to arise from ethical concerns than from religious or political causes.

14:3.0/77-2

"Peer Review and the Support of Science," Stephen Cole, Leonard Rubin, and Jonathan R. Cole, *Scientific American,* Vol. 237, No. 4, October, pp. 34-41.

This article on the peer review system used to evaluate research proposals gives a good picture of both the organization of that process and the ways in which research proposals are judged. The authors conducted a year-long study of different aspects of the peer review system at the National Science Foundation, including indepth interviews with 70 people involved in all stages of the system. In addition, they read a group of proposals and independently assessed their merits, the compared their assessments with the assessments reached through the peer review process. Finally, they conducted a statistical analysis of different characteristics of 1,200 applicants for basis NSF research grants.

The authors tested two hypotheses in their study: the "old-boy" hypothesis that proposals from a network of researchers are given preference, and the "rich get richer" hypothesis that funds are given to people who have received research awards before. Their anaylses suggest that the peer review system is, in general, an equitable arrangement that distributes limited funds for basic research primarily (but not exclusively) on the basis of perceived quality. In particular, they did not find that the National Science Foundation's peer review system for basic science discriminated against noneminent scientists. They concluded that the scientific enterprise is an equitable *although highly stratified* social institution, where the individuals whose work is most favorably evaluated by their colleagues tend to receive the majority of research funding.

14:3.0/76-1

The Impact of Federal Regulations on Research Management in Colleges and Universities: Overview and Summaries, John A. Perkins, Herman D. Johnson, and Robert F. Kerley, 59 pp. (University of California, Berkeley).

This volume is the final report of a research project sponsored by the National Science Foundation's Research Management Improvement Program. In it, the authors provide summary descriptions of a series of "impact reports" that were prepared as part of the project. The impact areas are: procurement requirements; financial management-budgeting and reporting under Federal contracts and grants; indirect and direct costs recovery under Federal contracts and grants' property management; proposal preparation, negotiation, and award; protection of human subjects; and time and effort reporting.

These reports are primarily detailed descriptions of the impact that Federal research management procedures have had on the University of California. The careful attention they give to outlining the identifiable effects of contract and grant management make them useful to the university administrator and policymaker.

14:3.0/76-2

Protecting Human Subjects in Social and Behavioral Research: Ethics, Law, and the New DHEW Rules: A Critique, Thomas Killin Dalglish, 590 pp. (Center for Research in Management Science, University of California, Berkeley).

Protecting the rights and welfare of human subjects used in research has become a major public policy issue. This study (Working Paper in Management Science, CP-385) traces the development of legal controls on university research involving human subjects and draws upon the experience of the University of California, Berkeley with the rules protecting human subjects promulgated by the U.S. Department of Health, Education, and Welfare (DHEW).

Part I describes the problems of research using human subjects and portrays DHEW rules as part of a trend toward formal and legal prescriptions on conduct. Part III reviews the ethical and legal framework for the DHEW rules and analyzes ethical codes of the major professional, social, and behavioral science associations for their (limited) potential in protecting human subjects. Part III analyses the DHEW rules and their implementation at Berkeley, including the way human subjects respond to such concepts as "benefit," "social risks," and "informed consent."

In Part IV, the author evaluates the impact of the DHEW rules, judging it to be less adverse to the conduct of research than many researchers have claimed and to have long-range implications for the governance of university research. The rights and welfare of human subjects will be more completely protected, the author argues, only when present rules are supplemented by a restructuring of such governance. Part IV closes with recommendations for national policy and suggestions for future research.

14:3.0/75

"The Controversy Over Peer Review," Thane Gustafson, Science, Vol. 190, No. 4219, 12 December, pp. 1060-1066.

This article provides a brief description of the process of peer review as it operates in establishing priorities and making funding decisions in Federal agencies. The author first provides a brief overview of how the peer review process operates in two different agencies (the National Science Foundation and the National Institute of Health) and notes that there can be considerable variation among programs in the relative weight given to peer reviews or to agency staff and program officers. He then describes the ways in which the peer review system has been attacked: (1) charges of favoritism or cronyism among the reviewers, (2) complaints of excessive or improper, importance given to the role of agency staffs; and (3) unhappiness because the decentralized process is not a reliable way to coordinate Federal research funding with political goals.

The author tries to assess whether these charges are accurate, and, if so, how scientific goals may have been affected. He concludes that, for the most part, the peer review system continues to function in an equitable manner. He suggests, however, that it may not be accomplishing its objectives in spite of this strength. He agues that the peer review system relies heavily on a market mechanism that assures a reasonably accurate sampling of the universe of research opportunities in the proposal process. He says that recent development in the support of academic science (concentration of research funds in a few agencies and growth of "targeted" research) have created new channels of communication and rewards that parallel the peer review process. Although he concedes that there are defects in the peer review process, he argues that the new channels of review and reward developing with the changed funding patterns are ultimately more hazardous than peer review to the continued vitality of science. He concludes with some positive suggestions about improving the peer review system to ensure its viability in the present environment.

14:3.0/68

The Closed Corporation: American Universities in Crisis, James Ridgeway, 273 pp. (Random House, New York).

This book (subtitled "How America's Great Universities Are Controlled by Big Business and the Department of Defense") is essentially an update of other critical literature that has appeared periodically about the relationships between university administration and corporate management and between university, government, and industrial research. The book suffers from a lack of systematic and carefully documented study to support the author's biases about the relation of the ivory tower to industrial research.

In spite of these shortcomings, the book provides one of the few attempts to document the nature of the collegial relations between researchers and university policymakers, industry, and the Federal Government. It also describes the dynamics of the policymaking process and the impact of this process on universities and the nation's research effort. The book raises a number of disturbing questions about the interaction between academic research and other research and about the moral (and legal) obligations universities have in shaping the research environment. Although these questions are much discussed generally in the academic community, the community has not given them the systematic study they deserve.

15

Resource Allocation and Budgeting

Richard J. Meisinger, Jr.

The literature on resource allocation and budgeting addresses the question on how to distribute scarce resources among certain desirable activities. The budget is the means by which these decisions are made explict and is, in Aaron Wildavsky's words, "concerned with the translation of financial resources into human purposes."* The budgetary process involves the interaction of institutions and state agencies, beginning with the development of budget submission guidelines and budget preparations and moving on to the writing of appropriation bills and final approval by the executive branch and the legislature.

A number of dimensions are central to the resource allocation process: (1) the manner in which budget submission guidelines are developed; (2) the way in which such guidelines are used in formulating budget requests; (3) the revenue situation (see Topic 5, Finance) and the extent of the demands made by competing agencies for scare resources; (4) the power structure of agencies involved in the competition (i.e, strong or weak governor, state statutory responsi-

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*Aaron Wildavsky, *The Politics of the Budgetary Process*, 3rd edition (Little, Brown and Company, Boston), 1979, p. 1.

bilities of higher education coordinating agency); (5) the timing of the budgetary cycle (i.e., annual or biennial); (6) the amount of time institutions and agencies are allowed for budget preparation and for budget review and analysis; (7) the number of agencies involved in the process and their characteristics (i.e., staff size and experience, applicability of civil service regulations; (8) the analytical techniques and technologies employed by budget review agencies, including management information systems, planning-programming-budgeting systems, and cost analyses; (9) the nature and extent of interagency exchanges in the budgetary process (i.e., formal hearings, informal communications, analyses and data sharing); and (10) the relationship between any statewide master plan for higher education and the resource allocation process.

The literature on resource allocation and budgeting tends to address either the broad aspects of budgetary theory and practice or specific forms of budgeting. Three forms—formula budgeting, planning-programming-budgeting (PPB), and zero-base budgeting (ZBB)—are so frequently identified that they warrant separate classification here.

Budgetary Theory and Practice. Much of the literature on the budgetary process focuses on the environment in which budgeting takes place. The literature included in this section deals with agency roles and characteristics and the interaction among organizations, rather than with specific budget procedures. This subtopic also addresses the historical development of budgeting, budgeting reforms, staff coordination, individual state budgeting procedures, and procedures for contending with cutbacks and revenue increases. Entries are further categorized in this subtopic according to whether they address state or Federal budgeting.

Formula Budgeting. Formula budgeting is a resource allocation process that uses formally established guidelines or decision rules as aids in generating and reviewing institutional or agency budget requests. These guidelines, frequently employing formulas, are a means of ensuring that resources are distributed equitably among competing organizations and of reducing the complexity of budget review. Although all budget processes make use of decision rules, the use of the formula approach generally applies to only those situations in which guidelines can be and are explicit and formal.

Planning-Programming-Budgeting (PPB). PPB is a conceptual framework for budgeting that identifies program objectives and systematically compares various methods of meeting those objectives. PPB uses two principal instruments: a program budget and cost-benefit analysis. The program budget is a format for organizing information about the costs and benefits of output activities. Cost-benefit analysis, which entails a set of formal techniques, attempts to compare the costs and benefits of competing programs within a quantitative framework. Considerable literature has been written about this approach to budgeting, especially as used by the Federal Government. Many PPB concepts have been incorporated into traditional budgetary systems in order to improve and add flexibility to these systems.

Zero-Base Budgeting (ZBB). ZBB is a microeconomic approach to budgeting involving the development of decision packages that identify discrete activities and functions and the ranking of these packages. The ranking process has a mechanical aspect and a policy framework aspect. In ZBB, the total budget is separated into a large number of discrete budgetary increments, each represented by a decision package that may be regarded as a self-contained budget request. Theoretically, the application of ZBB requires the construction of the budget from the ground up each budget cycle. However, this principle frequently is modified so that decision packages are developed for only a portion of the total budget. ZZB was first practiced in industry. It was adopted for the first time in the public sector on a large-scale basis by the State of Georgia in the early 1970's. A number of ZBB concepts have been incorporated into traditional budgetary systems, primarily to improve the quality and increase the quantity of information to budget officials.

Resource allocation and planning are clearly related activities, for the budget is a means by which plans are translated into action. The subject merits close attention by planners, for one of the most significant policy problems facing higher education has been that of coordinating longer range planning with shorter range budgeting.

TOPIC ORGANIZATION

15: Resource Allocation and Budgeting
  - **1.0** Budgetary Theory and Practice
    - **1.1** General
    - **1.2** State Budgetary Process
    - **1.3** Federal Budgetary Process
  - **2.0** Formula Budgeting
  - **3.0** Planning-Programming-Budgeting
  - **4.0** Zero-Base Budgeting

1.0 BUDGETARY THEORY AND PRACTICE

1.1 General

15:1.1/81-1

"Public Budgeting Amidst Uncertainty and Instability," Naomi Caiden, *Public Budgeting & Finance*, Vol. 1, No. 1, Spring, pp. 6-19.

This article presents a generalist's view of the changing nature of public budgeting in an unstable environment. It is recommended for those who want to understand the broad-brush context of public sector budgeting in the 1980's. Although higher education is not specifically referenced, the issues raised are directly applicable to that part of the public sector.

Caiden describes the changing environment of budgeting, focusing on the problem of apparently insatiable demands for public goods and services in a situation of fewer real resources. She mentions the impressive array of budget reforms that have resulted recently from the considerable interest in budget practices, but observes that too much attention has been focused on PPB and ZBB. She also concludes that most budget reform is misconceived, that many reformers subordinate substance to process, and that reformers do not understand that reforms are not universally applicable.

Caiden concludes her essay with a list of six sources of uncertainty in budgeting and suggests ways for administrators to deal with them. The uncertainties mentioned are those arising from: (1) novelty, (2) an annual perspective, (3) problems in forecasting, (4) centralization and bureaucratic controls, (5) size and complexity, and (6) erosion of accountability.

15:1.1/81-2

"Control and Controls: A Reexamination of Control Patterns in Budget Execution," Fred Thompson and William Zumeta, *Policy Sciences*, Vol. 13, pp. 25-50.

Fred Thompson and William Zumeta argue that students of the budgetary process give insufficient attention to the execution phase of budgeting and that this inattention seriously undervalues the significance of the budget control function. The authors admit that budget officials frequently misuse controls and note that, the some situations, expenditure controls are redundant and dysfunctional.

The authors address three broad criticisms of budget control. First, they agree only in part that controls are executed at the expense of analysis; controls are viewed as more valuable when analysis is directed at the rigorous specification of outputs or at establishing standard costs. Second, the authors examine the criticism that controls are unproductive in that too much time and resources are spent producing and processing too much information. They observe that the ability of budget officials to collect and manipulate data often exceeds their ability to use if fruitfully. To support this contention, they cite California's experience in budgeting for the University of California during the 1960's and 1970's. However, they also note that budget officials naturally will seek greater certainty in their lives and one way they can achieve this is through redundant and diverse information sources. Finally, the authors agree with the criticism that traditional fiscal controls are capricious and applied inconsistently, but note that the application of such controls forces the budget officials to weigh the benefits of the expenditures.

The arguments in this paper are presented from an economist's perspective. The technical portions are easily approached if the reader has had some training in economics, but can be followed by any patient reader. The insights into budget execution control functions gained from the paper are well worth the effort required to push through some of the material.

15:1.1/80-1

Managing Fiscal Stress: The Crisis in the Public Sector, Charles H. Levine, ed., 344 pp. (Chatham House Publishers, Chatham, N.J.).

This fine collection of 20 papers provides indepth analyses of the causes and consequences of financial stress in the public sector, focusing on the problems, constraints, alternatives, and choices that arise in the management of organizational decline. The papers draw on examples from a number of public sector organizations, including universities, and provide the reader with a broad range of experiences in cutback management.

The volume is divided into six sections. Section 1, "Introduction," and Section 2, "Causes of Fiscal Stress," discuss situational factors that cause or contribute to fiscal stress. Charles H. Levine's essay, "Organizational Decline and Cutback Management," provides an overview of the issues and establishes a solid framework for the other papers.

The remaining sections suggest directions for administrative action. Section 3, "Decision Making," contains two particularly good papers: Paul R. Schulman's "Nonincremental Policy Making: Notes Toward An Alternative Paradigm," and Irene Rubin's "Universities in Stress: Decision Making Under Conditions of Reduced Resources." Schulman's paper is an analysis of decisionmaking in the National Aeronautics and Space Administration over the 10-year period of its growth and decline. Rubin's paper examines the decisionmaking strategies used by five state universities experiencing financial stress.

The income side of public expenditure decisionmaking is discussed in Section 4, "Resources." Decisionmakers usually direct their attention to the revenue side of budgeting when fiscal stress first appears because an expanded resource base will sometimes alleviate the pressures of increased demands for public services.

Section 5, "Productivity," examines the prospects for increasing the productivity of public services, one of the most frequently suggested means for stretching limited resources. Productivity improvement proves to be an elusive concept in practice, however.

Section 6, "Cutbacks," deals with the difficult decisions that must be made when all other means for reducing fiscal stress have been tried. This section explains how decisionmakers decide which employees to terminate, which programs and agencies to scale back or disband, and which clients will suffer from the reduction or elimination of services. Robert D. Behn's "How To Terminate a Public Policy: A Dozen Hints for the Would-Be Terminator" is an excellent summary of practical techniques for the administrator faced with the task of reducing or eliminating some public service. In particular, he outlines techniques that might be used to overcome political resistence and bureaucratic inertia in the face of necessary cutbacks.

15:1.1/80-2

Perspectives on Budgeting, Allen Schick, ed., 192 pp. (American Society for Public Administration, Washington, D.C.).

This volume contains a number of papers on budgeting that have appeared in *Public Administration Review* over the past three decades. Some of the articles in the volume are dated and are useful primarily for their historical context. Others, however, are classics in the literature.

Allen Schick's introductory essay, "Budgeting As an Administrative Process," provides a brief history of budgeting in this country, including the numerous attempts at budgetary reform. In his essay, Schick takes a joyous swing at Aaron Wildavsky's view of incrementalism in budgetary theory.

The volume is divided into four parts. The first part, "Perspectives on Budgeting," contain Schick's "The Road to PPB: The Stages of Budget Reform," Verne B. Lewis' "Toward a Theory of Budgeting," and Naomi Caiden's "Patterns of Budgeting." The first two articles are classics, and Caiden's is an excellent comparative historical analysis. The second part, "Reforming the Budget Process," contains Aaron Wildavsky's classic "Political Implications of Budgetary Reform," Richard Rose's "Implementation and Evaporation: The Record of MBO," and Thomas P. Lauth's "Zero-Base Budgeting in Georgia State Government: Myth and Reality," among others. The third part, on "The Central Budget Office," contains a good case study of the politicization of the Office of Management and Budget written by Larry Berman ("OMB and the Hazards of Presidential Staff Work"). The best article in "Budgeting in the Agencies," the fourth part, is Lance T. LeLoup and William B. Moreland's "Agency Strategies and Executive Review: The Hidden Politics of Budgeting."

See: 29: 2.2/79-1 **Budgeting in Higher Education,** J. Kent Caruthers and Melvin Orwig, eds.

This monograph is probably the best overview of contemporary budgeting practices and issues in higher education. It is a summary document, the product of an extensive review of the literature, and necessarily sacrifices analytical depth for breath of coverage. Accordingly, it should provide new source material for even the most experienced budget experts. A noteworthy feature of the literature review is that it extends beyond the familiar literature of higher education to include writings on budgeting that have evolved from other disciplines. The report is balanced in its consideration of budgeting at the institutional and state levels.

The report's six chapter headings organize the material systematically: "Budgeting Perspectives," "Major Issues in Postsecondary Education Budgeting," "Evolution of Modern Budgeting," "Analysis of Current Budgeting Approaches in Postsecondary Education," "Budgetary Responsibilities at Differing Organizational Levels," and "The Years Ahead." In addition, the authors have included a very complete bibliography of source material.

The chapter on budgeting perspectives addresses several underlying concerns of the budgetary process, including the role of technical analysis, the importance of the interaction of people and budgeting, the demands for political rationality, and the interaction of analysis and decisionmaking. The major issues in postsecondary education budgeting considered by the authors are participation, centralization of authority, equity, information burdens, and the need for cost, outcomes, and performance information. The focus of the history of modern budgeting is on the higher education environment, although broader governmental trends (i.e., the executive budget movement, performance budgeting, and PPB systems) are briefly presented.

The most extensive section of the report examines current budgeting aproaches in higher education, including incrementalism, formula budgeting, PPB, ZBB, and performance budgeting. This chapter is followed by a useful overview of the flow of budget documents and analysis and the role of the various participants at the institutional and state levels.

The concluding chapter forecasts the impact of such factors as enrollments, revenues, new student markets, and collective bargaining on budget reforms that seek to accommodate the pressures for participation, centralization, equity, and information needs.

15:1.1/78-1

"Symposium on Organizational Decline and Cutback Management," *Public Administration Review,* Vol. 38, No. 4, July/August, pp. 315-357.

This collection of six articles is highly recommended for those interested in resource allocation under conditions of organizational decline. The articles from this symposium are all of exceptionally high quality.

Charles H. Levine presents an excellent overview of the subject in "Organizational Decline and Cutback Management." He indicates that most administrators have not experienced organizational decline and therefore lack the necessary tools to manage such a situation effectively. Levine summarizes the causes of public organization decline in a four-cell matrix encompassing political vulnerability, problem depletion, organizational atrophy, and environmental atrophy. He observes that organizations will respond to retrenchment with a mixture of strategies that are not necessarily consistent. For his typology of organizational decline, Levine presents a list of management tactics used to resist decline and a parallel list of tactics used to smooth decline. He also discusses the implications of five frequently employed decision rules: seniority, hiring freezes, even-percentage cuts across the board, productivity criteria, and zero-base budgeting.

Andrew Glassberg in "Organizational Responses to Municipal Budget Decreases," compares the public and private sectors, noting that fiscal constraints tend to drive the public sector toward greater similarity with the private sector. He draws on the New York City experience during the 1970's to assess the relative impacts of incremental and major budget cuts and the role of leadership.

In "Closing a Government Facility," Robert D. Behn examines the politics of termination. He presents numerous examples of public policy debates over closing and shows how the government overcame survival tactics employed by a number of supporters of specific facilities. In particular, Behn identifies ways to minimize the impact of closing facilities.

Garry D. Brewer, in "Termination: Hard Choices—Harder Questions," steps back to address some of the broader policy questions concerning organizational cutbacks. Brewer raises a number of basic questions, including: How can a policy or program be rationally or humanely adjusted or ended without its having had a thorough evaluation? Who will suffer from the termination and in what ways? What provisions of redress, such as due process, have to be considered? What might be learned in the termination process that will inform new policies and programs in the same or related fields? Brewer discusses aspects of the analytical, decision selection, execution, and evaluation phases of the termination process. He also discusses briefly two recent termination proposals: zero-base budgets and "sunset" laws.

Richard M. Cyert addresses "The Management of Universities of Constant or Decreasing Size." Two difficulties encountered in such settings are the inability to attract good managers and the impact of inflation. Cyert suggests that institutions of constant or decreasing size should develop new strategic plans, but warns against too great an emphasis on survival. He notes that in contracting organizations it is frequently difficult for members to maintain a desire to achieve excellence. Also, conflict resolution is more difficult without slack resources. Cyert argues that the primary means for resolving conflicts within contracting organizations is to find objective criteria on which agreement among the opposing forces can be achieved.

15:1.1/78-2

"A Budget for All Seasons? Why the Traditional Budget Lasts," Aaron Wildavsky, *Public Administration Review*, Vol. 38, No. 6, November/December, pp. 501-509.

Wildavsky's article is a response to the considerable activity in recent years directed toward seeking innovations in the budgetary process (e.g., program budgeting and zero-base budgeting). The author acknowledges that traditional budgets, with their incremental line-item focus, have numerous faults. However, he contends that such budgets, while not scoring brilliantly on any particular dimension, satisfy a number of performance criteria, whereas the innovations receive low scores on one or more dimensions. For this reason, traditional budgets have endured while a number of budget innovations have fallen by the wayside.

Wildavsky examines the purposes a public sector budget is supposed to serve: accountability, control, efficiency, effectiveness, economic management and planning, and political choice. He then analyzes budgets along several dimensions: unit of measurement (i.e., cash or volume); time span (i.e., months, year, many years); form of calculation (i.e., incremental or comprehensive); and the differences between appropriations and treasury budgeting. Wildavsky also details the weaknesses of traditional budgeting. But he concludes that it lasts because it is simpler, easier, more controllable, and more flexible than modern alternatives like planning-programming-budgeting, zero-base budgeting, and indexed entitlements, and, importantly, is more adaptable.

This article is an excellent summary of the functions of the modern public sector budget and provides considerable food for thought to policy-makers struggling to improve budgetary practices in their own settings.

15:1.1/78-3

"Symposium on Budgeting in an Era of Resource Scarcity," *Public Administration Review*, Vol. 38, No. 6, November/December, pp. 510-544.

This article contains seven papers that address the issue of budgeting with scarce resources. While each of the papers is generally interesting, the focus of the group is not as tight as it might have been.

John L. Mikesell discusses "Government Decisions in Budgeting and Taxing: The Economic Logic." At a high level of generality, Mikesell addresses control of the provision of goods and services that the market system cannot provide or would provide imperfectly. His economic approach to public action is one of identifying the values of the services provided and determining the appropriate distribution of relative revenue burdens. Mikesell recommends against artificial linkage of the revenue and budget systems.

Allen Schick's excellent paper, "Contemporary Problems in Financial Control," is concerned with Federal expenditures beyond the reach of internal controls (i.e., spending by parties outside the control system of Federal agencies). Schick traces briefly the way in which financial control has been internalized by Federal agencies; he argues that the Federal Government is now experiencing a failure to internalize its fiscal norms, not because of a breakdown in internal controls but because these controls do not extend to the increasing number of external organizations with which the Government does business. Schick notes that the loss of control has accompanied the significant rise in Federal assistance to state and local governments. Also, control of intergovernmental monies is complicated by the practice of multipocket budgeting. Finally, the spread of government by contract has also undermined the force of internal control.

Larry Berman presents a brief case study history of the Office of Management and Budget in "OMB and the Hazards of Presidential Staff Work." Berman discusses the Nixon administration's use of OMB as a political agent of the executive branch and the agency's concommitant loss of policymaking legitimacy. He concludes that OMB must be politically sensitive while maintaining an interest-free perspective on executive branch politics.

Mark J. Versel describes the implementation of ZBB in "Zero-Base Budgeting: Setting Priorities Through the Ranking Process." The most controversial aspect of ZBB has been the ranking process whereby managers array their priorities by selecting from decision packages assembled by lower organization units. Versel explains how to implement a ranking process, although his paper lacks sufficient examples to aid the reader in applying these techniques.

Daniel M. Ogden, Jr., proposes an alternative to formal ZBB in "Beyond Zero Based Budgeting." He suggests that the most practical budgeting system for managers is one that combines incremental and zero-based analysis.

Jerry McCaffery and John H. Bowman discuss "Participatory Democracy and Budgeting: The Effects of Proposition 13." Their article summarizes the initial local response to the passage of Proposition 13 in California and describes how the State lightened the impact of Proposition 13 by drawing on its huge revenue surplus. The authors also identify the effects of Proposition 13 on state and local finance. They note that the large state surplus was essential to an orderly transition in the provision of public goods and services.

Naomi Caiden summarizes some of her research on historical budgeting in "Patterns of Budgeting." Caiden argues that most discussions of public budgeting concentrate on a single pattern, ignoring other patterns of behavior. She ties together the concept of the political capacity of tax with the allocation of resources in developing a typology of patterns of budgeting. Three variables that underpin the typology are resource mobilization, accountability, and administrative control. The reader is encouraged to draw parallels between some of the historical budget patterns identified in the typology and recent budgetary/fiscal experiences.

15:1.1/77

Public Budgeting Systems, Robert D. Lee, Jr., and Ronald W. Johnson, 369 pp. (University Park Press, Baltimore, Md.).

This book is a very good primer on the budgetary process in the public sector. Although it does not address higher education specifically, most of the discussion applies to it.

The book is an analysis of the procedures and methods—historical, current, and projected—used in the resource allocation process. The authors describe the features of public budgeting that distinguish it from private forms of budgeting, explain what budgets and budgeting systems are, and relate budgeting to three theories of decisionmaking: pure rationality; limited rationality; and incrementalism, or "muddling through." To provide the reader with some perspective, the magnitude of government and the historical growth of local, state, and Federal finances are considered.

Several chapters are devoted to the historical development of budgeting. The authors examine the literature on proposals for and attempts at reform between 1900 and the early 1960's, drawing a careful distinction between budget theory and practice. They pay particular attention to the development of planning-programming-budgeting (PPB) systems in the 1960's, observing that PPB grew out of a number of concepts and techniques developed largely independently of the budgeting system: operations research, economic analysis, general systems theory, computers, and systems analysis. The authors trace the difficulties involved in transferring PPB systems developed in the Defense Department to Federal civilian agencies, and note how attempts by state and local government to implement PPB were also disappointing.

The book identifies the actors involved in budgetary decisionmaking and discusses the four phases in the budget cycle: preparation and submission, review and approval, execution, and audit. The executive and legislative roles in budgeting are treated separately, with attention given to the procedures in requesting budgets, the types of information assembled, the process of executive and legislative decisionmaking, and the types of budget documents and their formats. The techniques for conducting analyses and the limitations of analysis within a political system are discussed separately.

The authors address several aspects of the budgetary process that usually receive scant treatment, such as budget execution and governmental accounting procedures. They also consider capital budgeting and debt management, with an explanation of the relationship between capital and operating budgets. Additionally, the authors examine personnel budgeting and note the impact of personnel decisions and expenditures on the budget. Finally, they devote an interesting section to the economic and political problems that stem from having three major levels of government of differing financial capabilities provide various services. This discussion considers the patterns of interaction among the three levels.

15:1.1/75

Budgeting: A Comparative Theory of Budgetary Processes, Aaron Wildavsky, 432 pp. (Little, Brown and Company, Boston).

This book is a compendium of much that is known about budgeting at various levels of government in various countries of the world. The purpose of the book is comparative analysis, focusing on wealth and predictability as the dominant variables influencing budgetary behavior.

The study examines four wealthy and stable American cities, poor and unstable countries, American states that are combinations of the others, and deviant cases from a variety of American public organizations. In the deviant cases, key roles (that of spending advocate and treasury guardian) are absent. The concept of role in Wildavsky's hands becomes a powerful predictive variable in a great many cases. Overall, however, the technical subtleties of budgeting are sacrificed in favor of a broad-brush treatment of similarities and differences between budgeting systems.

The book contains some new work by Wildavsky on strategies and calculations and on budgeting and conflict. A considerable portion of the book is devoted to examining reforms in budgeting, moving from program budgeting to zero-base budgeting to planning-programming-budgeting systems. Wildavsky's analysis of PPBS is extremely critical but rather accurate. The author is one of the few observers to analyze the political assumptions that lie beneath the supposedly neutral cloak of efficiency and effectiveness. It is important to note that there are some aspects of PPBS, such as policy analysis, that the author favors.

This book is fascinating reading, primarily because the comparative analysis highlights aspects of Federal and state budgeting processes that might otherwise have gone unnoticed. It is recommended reading because of its penetrating yet lucid analysis of budgeting principles.

1.2 STATE BUDGETARY PROCESS

15:1.2/81

State Fiscal Contraints in Higher Education, William Hyde, 19 pp. (Education Finance Center, Education Commission of the States, Denver, Colo.).

This paper (Working Paper No. 33) identifies the sources of most institutions' current financial problems as: enrollment decline; enrollment fluctuation, regardless of the enrollment trend; changes in the composition of the student body; and budgetary reductions in state support. The author explains each problem and discusses what some states are doing to cope with the problems. Because of its brevity, the paper only highlights the issues listed and provides capsule summaries of finance and budgeting strategies in selected states.

In examining the effects of enrollment decline, the author indicates that strategies for determining the relationship between changes in costs and changes in enrollments include concepts such as fixed and variable costs and decoupling. The author makes several worthwhile observations: (1) classification of costs as either fixed or variable involves making judgments about the educational process of an institution; (2) the size of an institution or function within an institution affects the smoothness with which changes can occur; (3) any effort to categorize costs as fixed or variable must consider the time frame of the expected change; and (4) many costs that are considered fixed in the short run become variable with time. The author supports his summary with examples from Ohio, Wisconsin, and New Jersey.

The author identifies three funding mechanisms to accommodate enrollment fluctuations: (1) the lagged base-year enrollment level, (2) an averaged enrollment base, and (3) the enrollment corridor concept. He warns against allocating too many resources to making more accurate enrollment projections.

The author notes that the composition of the student bodies on campuses has shifted away from the traditional full-time student toward more part-time student enrollments. Thus, institutions in states using funding formulas that were first developed when most students attended on a full-time basis are particularly disadvantaged by the shifts in enrollments. A method for coping with these shifts is to establish separate cost categories for various programs and separate cost categories by level of instruction.

As resources become scarce, the importance of strong program review procedures increases. The author summarizes the experience of institutions in Colorado in the face of a significant reduction in the level of State support for higher education.

15:1.2/80-1

Financing and Budgeting Postsecondary Education in the 1980's, Larry L. Leslie and Heather L. Otto, eds., 90 pp. (Center for the Study of Higher Education, University of Arizona, Tucson).

This volume is a collection of papers presented at the University of Arizona higher education finance conference in 1979. Several were formal addresses, which tend to have a broad focus. One of the papers is a scholarly, indepth examination of its subject.

Robert C. Andringa discusses "The Political-Economic Context for Financing Postsecondary Education in the 1980's" at the state and national levels. He offers 15 suggestions for success in institutional relations with state government, most of which are commonsense observations. Kay S. Cornaby, a state legislator from Utah, reacts to Andringa's comments in "The Political-Economic Context: A Reaction." She highlights the isolation from the real world of education experienced by legislators when they determine budgets for higher education. In terms of future alternatives in financing, she notes that tuition and fees must be increased significantly and that institutions must accelerate their fund-rasing efforts.

In "Financial Responses for the 1980's," Melvin D. Orwig emphasizes the need for strategic planning in higher education. Strategic planning, he says, "involves establishing organizational purposes and objectives in light of the external environment and then developing strategies for accomplishing them given organizational capabilities and resources." Orwig suggests the use of planning models such as the TRADES model at Stanford or the more generalized EDUCOM and NCHEMS SPS models to improve an institution's analytical capability.

Richard Allen's "A Preliminary Report on the National Survey of State Resource Allocation" is brief but stimulating. The author describes the methodology for his in-progress descriptive study of state budgeting processes for higher education and presents some preliminary conclusions about the separation of powers, centralization, and the types of budgets used by states.

Larry L. Leslie and Paul T. Brinkman provide a thorough analysis of "Instructional Costs at Research Universities I." The authors present basic data for cost comparisons among the three Arizona universities, institution-level cost comparisons among the eight Western Research Universities I, and department-level cost comparisons for eight departments or fields of study within the eight Research Universities. They also provide a general explanation for the variation in unit instructional costs. This paper is scholarly and well-researched.

The volume concludes with three more general addresses: Newton O. Cattell's "The Character of the University and the Increasing Threat of State Government Intrusion"; James Furman's "The Integration of Fiscal and Academic Planning," emphasizing the problems encountered at the state level; and Richard Millard's "Quality Promotion in the Steady State."

15:1.2/80-2

"Financing and Budgeting in Higher Education," pp. 67-82 in *Challenge: Coordination and Governance in the '80s,* Education Commission of the States (ECS, Denver, Colo.).

This chapter summarizes the direction that statewide budgeting practices take as postsecondary education moves into the 1980's. It is necessarily brief, but touches on the major developments and trends in state-level resource allocation.

The chapter has seven sections. The "Introduction" outlines a pessimistic scenario and an optimistic scenario for the economic foundation of higher education in the 1980's. The second section, "Possibilities for Either Pessimism or Optimism," projects the impacts of enrollment shifts by geographical region.

"State Budgeting Trends and Issues" discusses the introduction of new budget systems to replace incremental budgeting processes or formula budgeting practices. Attention is focused on modifications to deal with enrollment decline and procedures to budget for qualitative improvement. Examples are drawn from the Tennessee Performance Funding Project and Florida's "programs of emphasis."

The fourth and fifth sections, "State Agency Role in the Budget Process" and "Current Budget Roles of State Agencies," suggest future relationships among state higher education agencies, executive budget offices, and legislative fiscal staffs in terms of the budget review function. These sections also examine potential roles for state higher education agencies as executive and legislative staffs take a more prominent part in the budget process. Possibilities include the policy issue role, the program evaluation role, and the budget advocate and formula analysis role. The future budget role of coordinating boards is seen to be one that is more complementary to the legislative and executive budget staffs.

The sixth section, "Relationship of Budget and Finance to the Major Issues of Postsecondary Education," raises the question of whether states will make funds directly available to students, rather than continuing the historic pattern of providing most of their support directly to institutions. Also discussed is the fact that no state has adopted a complete market model for funding public institutions. This section also asks how effective program and management accountability can be achieved without increased controls. Finally, this section suggests how institutions will structure and justify their budget requests when enrollments level off or decline.

The final section, "Recommendations for Finance and Budget," lists seven suggestions for modifying state budget practices to better cope with the uncertainties of the 1980's.

15:1.2/80-3

"Information Systems for State-Level Decisions and the Budget: or California Gets Its Just DSIRts," Fred Thompson, pp. 155-193 in *Innovations in Higher Education Management: Coping with the 80s*, Douglas J. Collier, ed. (National Center for Higher Education Management Systems, Boulder, Colo.).

This paper describes how state-level fiscal authorities managed the complex, competitive higher education market in California during the late 1960's and early 1970's, and advocates the use of a decentralized, market-oriented funding plan to make the resource allocation process more efficient and effective. The framework for the proposed plan is based on economic theory. The author presents his assumptions clearly and convincingly. However, implicit throughout the paper is the fact that the world of the economist and that of the public policymaker are not always congruent.

Thompson proposes the decentralized funding mechanism based on his frustrating experience with the University of California's Data System of Instructional Resources (DSIR). DSIR was developed around 1970 in response to state-level demands for more information about institutional costs, faculty workload, and space utilization. This information was intended to be used by state-level officials to aid them in reviewing the University's budget, and specifically, to relate systematically the provision of services with the actual distribution of activities and costs within the university. State-level officials believed that the University was sacrificing undergraduate education in favor of research and graduate education, and opted for greater centralized direction and control through DSIR.

Thompson's discussion of the history of DSIR is particularly enlightening. He notes that the California Department of Finance favored the introduction of a unit-cost funding mechanism for the University of California system, but backed off quietly from this approach in favor of the simple student-faculty ratios formerly used. The unit cost model was proposed based on the assumption that students, through their program preferences, determine resource requirements. Thompson points out the error in this assumption; namely, that the actual choices students make are determined by the services provided by the institution, a function of institutional resources. Thus, there was no recognition of the facts that student demand varies from institution to institution and that it is appropriate to operate institutions on different scales, with different program mixes and different instructional methodologies. If the unit cost funding mechanism were used, student behavior would have to be controlled to conform to the estimates on which the funding was based. Accordingly, student preferences would not determine resource requirements, but would be subordinated to the budget formula. Because the results were not consistent with state priorities, the unit cost mechanism was quietly dropped.

Thompson proposes a decentralized funding arrangement whereby the state would provide a fixed per-unit subsidy for each additional student enrolled beyond some agreed-upon base enrollment. When enrollments decline, the budget base would be reduced on the same basis. Thompson also suggests that all institutions receive the same per-unit subsidy. Thompson's plan offers institutions an incentive to economize in the operation of their instructional programs.

The paper includes a technical appendix in which the author explores the relationship between the scale of institutional operations (enrollment) and cost.

15:1.2/80-4

"Performance Funding and Power Relations in Higher Education," Richard G. Dumont, *The Journal of Higher Education*, Vol. 51, No. 4, July/August, pp. 400-423.

This article is a case study in performance funding based on the execution and outcomes of the Tennessee Higher Education Commission Performance Funding Project at Tennessee Tech University during academic years 1976-77 and 1977-78.

The primary objective of the statewide project, which involved 11 public institutions on a voluntary basis during the pilot study, was to determine the feasibility of performance funding as a complement to Tennessee's enrollment-driven budget formula. The project was undertaken with the understanding that the existing formula had limitations and that a more appropriate response to the demands of accountability was desirable. The major objectives of the pilot projects were to develop and identify instructional goals and associated performance indicators, to collect data on these indicators, and to develop ways in which performance might be incorporated into the funding mechanism. The focus was on institution-wide instructional goals only.

The author observes that, in undertaking the project, members of the Tennessee Tech University community resisted the development of performance criteria and expressed considerable concern regarding the potential for increased external control by the Tennessee Higher Education Commission and the institution's governing board. Administrators and faculty were skeptical of increased accountability in the guise of performance funding. This resistance was a major factor in a significant shift in basic policy assumptions held by the staff members of the Tennessee Higher Education Commission. The author notes that "what began as a project intended primarily to advance the interests of accountability through *evaluation* and an associated *coercive* . . . mechanism involving differential distribution of funds . . . *shifted* to an emphasis more congenial to the values of academic freedom and autonomy, i.e., the *encouragement*

. . . of *evaluation for improved instructional performance* . . . through the provision of 'incentive' monies."

The author reviews the organizational theory literature briefly to set the stage for a final interpretation of the Performance Funding Project experience. His open systems model emphasizes the dialectical dynamics involving resources, power, and conflict. Most readers will find the description of the interorganizational relationship rather enlightening. However, the development of a sociological theory to explain the interorganizational dynamics of the Performance Funding Project tends to obfuscate the lessons to be learned in this case study.

15:1.2/79

Program Flexibility and Budget Growth: The Case of the California Community Colleges, Dan A. Cothran, 38 pp., (Faculty of Commerce and Business Administration, University of British Columbia, Vancouver).

This paper examines the reasons for the rapid and exceptional growth of California state expenditures for community colleges between 1973 and 1975. The sources of this growth, which exceeded what would be predicted by an incrementalist theory of budgeting, are traced to program flexibility and the funding incentive structure.

Cothran's analysis discusses the concept of automatic funding, especially the technically uncontrollable expenditures provided by statute rather than by an explicit appropriation of the legislature. He notes that statutory methods of funding tend to be used for programs that have three characterstics: (1) total program funding is clearly a function of the number of clients; (2) the program fills such basic social needs that it must have priority in the budget process and "politics" must not be allowed to interfere with its provision; and (3) the program has several sources of revenue. Policymakers find automatic funding relatively easy to accept because they can often predict the level of expenditures for a program with some accuracy. Cothran also identifies four conditions in which rapid and unintended growth may occur under automatic funding: (1) a program might be characterized by broad or loose definitions of eligibility; (2) an agency or its clients may be offered enhanced fiscal incentives for program growth; (3) an agency or program may expand its clientele or functions; and (4) an agency or program may actively market its services.

Cothran shows that the California community college began operation with a rather loose statutory definition of functions of eligibility. Also, the community colleges experienced severe enrollment pressures for demographic reasons and because they broadened their mission to include adult education. At the same time, the state enacted a new financing law that provided a great incentive for institutions to enroll full-time students if possible. Accordingly, the community colleges altered their classifications to shift as many students as possible to full-time status. Finally, to take full advantage of the new financing law and the demographic trends, the community colleges began engaging in aggressive marketing campaigns to attract new students.

Cothran concludes that policymakers failed to understand how the funding formula would interact with its environment. He observes that the choice of automatic funding or annual budget appropriations will depend on the value that is more important to the policymaker: controlling agency behavior or controlling agency expenditures.

15:1.2/78-1

"Allocation of State Funds on a Performance Criterion: Acting on the Possible While Awaiting Perfection," E. Grady Bogue and William E. Troutt, pp. 45-47 in *Research and Planning for Higher Education: Proceedings of the 17th Annual Forum of the Association for Institutional Research,* Robert H. Fenske and Paul J. Staskey, eds. (Association for Institutional Research, Tallahassee, Fla.).

This brief article describes the Performance Funding Project undertaken by the Tennessee Higher Education Commission to improve the appropriations formula in Tennessee. The authors mention the major criticisms of budget formulas and explain how performance funding is an opportunity for the higher education community to demonstrate publicly the effectiveness of instructional performance.

The Performance Funding Project is an exploration of the feasibility of allocating some portion of state funds based on a performance criterion, as compared to allocating resources solely on the basis of enrollments. An underlying assumption of the project is that funding will continue to be based primarily on enrollment, but that a complementary feature may be included in the formula to reward institutional performance.

The authors discuss the assumptions upon which the project is based and describe the lessons learned from the first year of pilot project activity. They also list several promising and encouraging findings from the initial activity.

15:1.2/78-2

"Fiscal Strategies To Stimulate Instructional Innovation and Change," Larry R. Jones, *The Journal of Higher Education,* Vol. 49, No. 6, November/December, pp. 588-607.

In this article, the author attempts to answer the question: Can state fiscal and budgetary strategies be employed successfully to create incentives for instructional innovation in colleges and universities? He uses the California higher education system as an example in discussing several alternative strategies. Implicit in the author's value system is that decentralization of decisionmaking on resource allocation to institutions is preferable to direct control by the state.

Three possible strategies are discussed at some length. In the first, the program change strategy, control language in the state budget would require that certain amounts of money be spent on innovative instructional programs. This strategy would require either increased state expenditures to cover the required innovation or a reallocation of funds from existing programs to the new ones. One state implementation strategy discussed is the forced reduction of expenditures for research. The author also describes the California Department of Finance's "negative program change proposal" mechanism instituted in the early 1970's. This technique permits the executive budget analysts to identify inefficiencies in institutional operations and to deduct the costs of the inefficiencies from the budget base.

The second strategy proposed is one of salary limitations. Ceilings would be placed on institutional salary ranges, for example, in budgetary control language.

These first two strategies are relative "strawmen" in that they involve rather heavy-handed state-level intervention in institutional resource allocation decisionmaking. The third alternative, an enrollment market strategy, is much preferred by the author. Increased innovation in instruction would be provided on the basis of new student enrollments, whereby the maginal enrollments would be funded at an equal rate for all public segments operating in a state. This strategy assumes that creating greater incentives for segments to compete for students will yield a greater breadth of course offerings at little or no reduction in instructional quality. The author suggests that this equimarginal enrollment funding mechanism would increase institutional competition for students and hence encourage instructional innovation because institutions have operated generally as revenue maximizers.

15:1.2/77

State Budgeting for Higher Education: The Political Economy of the Process, Frank A. Schmidtlein and Lyman A. Glenny, 275 pp. (Center for Research and Development in Higher Education, University of California, Berkeley).

This monograph is one of a series that summarizes the results of a 3-year, 50-state study of the processes state agencies use to formulate college and university budgets. Seventeen of the 50 states were studied intensively.

This study focuses on the process of state budgeting for higher education rather than on its inputs and outputs. It gives primary attention to a number of dilemmas that beset the design and conduct of the budget formulation process, identifying the tradeoffs involved in such processes under five broad headings: (1) consensus versus conflict, (2) efficiency versus redundancy, (3) flexibility versus control, (4) stability versus change, and (5) simplicity versus complexity.

The authors explore the organizational context of the budget process, directing most attention toward the origin and number, growth, location, staff organization, and responsibilities of the state-level budget agencies. They assess state-level budget structures by examining the effect of structure on decisions, the hierarchical patterns into which the budget process is organized, and the location of budgetary decisions. The theoretical problems in the design of state higher education budgets are also discussed in terms of a checks-and-balances paradigm and a bureaucratic paradigm.

The concept of budget process effectiveness is discussed in terms of technical efficiency, allocative efficiency, and rationality. The authors study the relationship between state-level budget agency staff characteristics and process effectiveness, and explore the context in which budgets are submitted and reviewed. In a useful conclusion, the authors project future trends in the design of budget structures.

The book presents a well-balanced blend of theory and data from the 17 states investigated in detail. The transition between theory and practice is remarkably smooth throughout the book. An extensive bibliography is provided.

See: 13:1.3/77-2 **"State-Level Performance Budgeting,"** Marvin W. Peterson with J. Michael Erwin and Richard Wilson, in *Increasing The Public Accountability of Higher Education*, John K. Folger, ed.

This excellent article is an indepth examination of two case studies involving state-level efforts to introduce performance budgeting techniques for higher education. The complex problems of budgetary reform, especially those that arise from political and interorganizational relationships, are clearly presented. This article is recommended reading for all interested in the difficulties of implementing resource allocation mechanisms that are based upon program quality or outcomes.

The authors distinguish between program budgeting and performance budgeting, with the latter defined as a budgetary structure that focuses on activities or functions which produce results and for which resources are used. Thus, in performance budgeting, resources (inputs) are related to activities (structure) and results (outcomes). The authors also detail the components of performance budgeting.

The authors identify several issues that arise with the application of outcome-oriented performance budgeting. First, because performance budgeting uses a program format and is often part of a state PPB system, it may be affected by negative reactions to the system. Second, the development of performance measures has often flowed from the state level down to the institutional level. Third, outcome indicators are sometimes viewed as useless or controversial because they are linked with program budgets at high levels of aggregation. Fourth, in states utilizing performance budgeting techniques, quantitative measures are more widely used than qualitative measures. Fifth, performance measures at high levels of program aggregation are not easily linked with administrative responsibility centers.

The authors discuss the implementation of performance budgeting at the state and institutional levels in Hawaii and Washington. Although these states have very different political and organizational structures, both experienced considerable difficulty in introducing the new budgeting procedures. In both cases, there were controversies surrounding the choice of program structures and budgetary formats. Also, in both states the executive branch took the lead in introducing performance budgeting, while higher education institutions and agencies resisted mildly or reacted neutrally. The authors observe that performance budgeting lacks political appeal, especially from the point of view of legislators.

In looking ahead to attempts by other states to implement peformance budgeting, the authors note that conditions for implementation in Hawaii and Washington probably are better than those in most other states at this time.

15:1.2/76-1

State Budgeting for Higher Education: State Fiscal Stringency and Public Higher Education, Frank M. Bowen and Lyman A. Glenny, 268 pp. (Center for Research and Development in Higher Education, University of California, Berkeley).

This monograph summarizes the results of a study to examine how public colleges and universities respond when states make substantial reductions in their appropriations. Data were collected from approximately 12 states, with detailed case studies prepared for five states.

The book addresses common strategies for dealing with fiscal stringency, while noting that the response to fiscal stringency occurs over time and in the context of highly diverse state governments and systems of public higher education. The authors define retrenchment in two ways: (1) midyear or midbiennium cutbacks required when a state finds its revenues insufficient to cover authorized budget levels; and (2) major reductions in budget requests during the final stages of budget development, usually after the Governor's budget has been submitted and during legisltive consideration of requests

The study seeks answers to the following questions: (1) What are the immediate responses to retrenchment? How selective can they be? (2) Who should participate in establishing procedures and selecting priorities and criteria for retrenchment? (3) What are impediments to the flexibility required to respond to fiscal stringency? How can these be overcome? (4) What special academic and support programs should receive particular attention during retrenchment? (5) What criteria and procedures should be used for layoff of personnel during retrenchment? (6) What are the possible longer term implications of retrenchment?

The authors explain the dangers of across-the-board budget cuts, noting that the needs and priorities of an educational institution are different during retrenchment than during periods of growth. Retrenchment requires a wider range of people than usually participate in academic programming and budgeting. One significant problem identified is that higher education institutions are apparently unable to face reality until after many options for dealing with retrenchment have been closed off.

Bowen and Glenny discuss the emergence of a new style of leadership to contend with the fiscal stringency of the 1970's and 1980's, when more attention will be directed to multiyear fiscal planning. Planning also will examine possible fiscal stringency, and will be a much more adaptive process. Plans will not longer be assumed valid for fixed 5- and 10- year periods, but will require revision more on an annual or biennial basis.

The five case studies included in the book cover Florida, Michigan, New Jersey, New York, and Wisconsin. These studies generally examine responses to fiscal stringency during the fiscal years 1974-75 and 1975-76, and each study was updated by a consultant in that state as of late spring 1976.

15:1.2/76-2

State Budgeting for Higher Education: Data Digest, Lyman A. Glenny, Frank M. Bowen, Richard J. Meisinger, Jr., Anthony W. Morgan, Ralph A. Purves, and Frank A. Schmidtlein, 376 pp. (Center for Research and Development in Higher Education, University of California, Berkeley).

The monograph is one of a series that summarizes the results of a 3-year, 50-state study of the processes state agencies use to formulate the budgets of colleges and universities. Seventeen of the 50 states were studied intensively. This monograph is a descriptive data base, addressing various budgetary processes in 17 states.

This study has three principal sections. Part I provides an overview of the state higher education budget process, outlining in general terms the organization, process, and procedures of the budget system. Budget terms are defined, and the development of the taxonomy used for data comparison is explained. Part II consists of tabular presentations that narrowly focus on specific variables across the 17 states. A total of 84 data tables are presented in this section. Part II includes individual state descriptions and flow charts of the budgetary processes. In notes to the data tables and in the individual state descriptions in Part III, recent or proposed changes are described where necessary to qualify the presentation.

The data presented in this study are organized into the following categories: structural classification and staff organization of agency staffs, staff personnel matters, presubmission activity, organizational budget requests, executive and state higher education agency hearings, Governor's budget, legislative review and appropriation, community colleges, and budget process time intervals.

This study describes the state budgetary processes at the time of field investigations conducted in 1974. In almost all instances, the development of the annual budget for fiscal 1975 is described; in a few cases the description is based on the fiscal 1976 budget. Although some of the data are clearly dated, the report is important for its comparison of the budget process across states, which highlights the complexity and diversity of budget systems.

15:1.2/76-3

State Budgeting for Higher Education: Interagency Conflict and Consensus, Lyman A. Glenny, 170 pp. (Center for Research and Development in Higher Education, University of California Berkeley).

This monograph is one of a series that summarizes the results of a 3-year, 50-state study of the processes used by state agencies to formulate college and university budgets. Seventeen of the 50 states were studied intensively.

The study seeks to evaluate the progress that budget professionals are making in their efforts to develop a more systematic approach to budgeting. The author addresses the interorganizational dynamics of the budgetary process, concentrating on the structure, roles, and staff characteristics of the state higher education agency, the executive budget office, and the legislative budget staffs. In particular, the author examines the competition and cooperation that arise out of a common concern for budget review.

This study evaluates and compares organizational and budgetary theory with state practices. It concludes that there is no single theory of decisionmaking, budgeting, organization, or interorganizational relationships that adequately explains the state budget organization and process, but that several theories contribute to a partial understanding of the process. The author also notes that the roles of individual state budget review agencies have become more and more confused as competition among them for political attention and influence has increased. He concludes that most of the 17 states in the study have failed to achieve a significant degree of domain consensus among the agencies that review operating budgets for higher education. This lack of domain consensus is attributed to the lack of specific operational goals for each agency and the newness of many agencies and their staffs. In a conclusion, Glenny suggests differentiated functions for each of the budget review agencies.

This study is packed with lucid observations about the interaction of the state agencies involved in the budget process. Particularly valuable to the individual who has never worked at the state level, the book also provides some much needed perspective for present or past state-level officials.

15:1.2/76-4

"The Lawmakers Budget for Higher Education: The Case of Illinois," James D. Nowlan, in *State Politics and Higher Education*, Leonard E. Goodall, ed. (LMG Associates, Dearborn, Mich.).

James D. Nowlan served as a member of the Illinois House of Representatives from 1969 to 1972, and undertook this work as a participant-observer in the legislative process. This article focuses on several cases of conflict and controversy in higher education that the legislature handled between 1969 and 1971. Those years were pivotal in the balance of relationships between the Illinois Board of Higher Education, the Governor's office, and the legislature.

The author examines the legislature's role in making decisions by rasing the following questions: (1) What is the nature and quality of the legislature's input? (2) What resources are drawn upon, and are they independent of other participants? (3) Are any normative values of the legislatures and its legislators reflected in the policy decions made? and (4) Is any change normal in the legislature's traditionally passive role in policymaking?

The mode of presentation for the cases discussed is journalistic description, and no attempt is made to develop a theoretical or analytical framework for the events decribed. Although the case studies are brief, they are lively and serve to highlight the details that a legislator believes are important in weighing a situation.

The author concludes that the legislature clearly has been subordinate to the Governor in relation to higher education decisionmaking in Illinois, but the legislature's involvement is increasing. By pointing out the Board of Higher Education's powerful control of information, the author demonstrates how state higher education agencies can wield considerable influence in the budgetary process. The author also concludes that as legislators are thrust more and more into budgetary conflicts, they develop analytical capabilities—primarily in the form of expert staffs—to better evaluate the complex issues.

15:1.2/76-5

State Budgeting for Higher Education: Information Systems and Technical Analyses, Ralph A. Purves and Lyman A. Glenny, 231 pp. (Center for Research and Development in Higher Education, University of California, Berkeley).

This monograph is one a series that summarizes the results of a 3-year, 50-state study of the processes used by state agencies to formulate college and university budgets. Seventeen of the 50 states were studied intensively.

This study focuses primarily on the informational and analytical aspects of budget requests to the state and the technical procedures that state budget agencies use to review these submissions. The authors give particular attention to the application of methods used to rationalize the budget process, such as program budget submissions, new information reporting structures and systems, and various micro-economic analytical techniques that have been developed for budget preparation and review.

A major portion of the study is descriptive. The authors discuss the taxonomies, uses, and systems of budgetary and financial information, and they consider the kind of data institutions provide, the format or organizing structure for collecting and displaying the uses of the data in the budget process to satisfy various budgetary functions, and the development of systematic procedures for gathering and reporting data. The authors compare the different styles of higher education budget review by establishing typologies and examining in detail the procedures of several states. Review techniques are grouped as objects of expenditure budgeting, performance budgeting, formula budgeting, programming-planning-budgeting, and tactical budget planning. Considerable attention is given to the formal budget documents that provide much of the information used for the overall budget review. Requests for documents from institutions and statewide governing boards, the exchange of documents at the state level, and the relationship of these documents to the original requests are examined to show these documents as information sources and as review material. The authors also discuss technical problems with information and analytical systems: noncomparability of data, nonuse of data, unsophisticated costing techniques, distorted incentives through workload factors, adequacy of output information, data quality and credibility, and misuse of data.

The study also evaluates budgetary information and review systems in terms of the implications and consequences of their use. The concluding chapter is a particularly excellent blend of philosophical, theoretical, and practical considerations for the design of information and analysis systems.

15:1.2/76-6

Budgeting for Higher Education and the Legislative Oversight Process, 27 pp. (Southern Regional Education Board, Atlanta, Ga.).

This publication presents five papers that discuss the higher education budgeting process from the perspectives of institutional, state higher education agency, executive budget office, and legislative policymakers.

In "Budgeting: A University Perspective," Jack K. Williams discusses how an institutional budget is prepared and indicates what legislators should know about budgets, plans for steady-state or declining enrollments, and budget formulas. Williams suggests that state governments must establish the guidelines for financial retrenchment, when necessary, and allow institutions to make recommendations and decisions on the locations of budget reductions. Williams also notes a relationship usually overlooked: If substantial savings are to be realized, they must be accomplished through reductions of personnel or increases in workload.

James M. Furman speaks to "Budgeting: Views of a State Higher Education Director," and observes that the share of state revenues earmarked for education is declining as enrollment growth reaches its peak. Furman believes that the executive and legislative branches view higher education as the balancing mechanism for appropriations generally in assembling the total budget. Furman also sees a decline in the use of budget formulas in the future and a concomitant increasing tendency of executive and legislative officials to view higher education's share of the budget as what remains after all other fixed income and fixed expenditure items are automatically funded.

In "Budgeting: Perspectives From a State Executive Agency," Wayne F. McGown outlines a budget contract system that complements the zero-base budgeting system being instituted in Wisconsin in the mid-1970's. In budget contracting, the legislature formally contracts with agencies for every program segment in the budget. The contract documentation provides specific evidence of the program performance expected and becomes the basis for postaudits. McGown believes that budget formulas are useful for the internal allocation of resources within a system, but that they are not particularly useful in the state-level budget determination process.

Lyman A. Glenny discusses the relationships between "State Control and Programs for Higher Education." He summarizes the environmental context for budgeting in higher education and discusses findings from a survey of college and university presidents. In particular, he notes the tendency of presidents to hold to the status quo. An important policy issue raised by Glenny is that if adults are successfully recruited to make up for enrollment declines among the young in public institutions, the state must decide who is to assume the cost.

Finally, Marshall S. Harris addresses "Legislative Oversight: A Former Legislator's View." He describes a way for organizing a legislature to conduct oversight studies and determine legislative policy. Harris' principal criticism of legislative activity is that there is seldom a coherent framework for policymaking. Interestingly, Harris also reports on higher education policymaking from his role as a member of the Florida Boards of Regents. This perspective is in many ways the opposite of the one he held in his former legislative role.

15:1.2/75-1

The Political Pursestrings: The Role of the Legislature in the Budgetary Process, Alan P. Balutis and Daron K. Butler, eds., 221 pp. (Sage/Halstead Publishers, Beverly Hills, Calif.).

Legislative authority once ruled the budgetary process, but recently has been eclipsed by the executive branch of government. Considerable has been given to the reform of state legislatures; one such reform has been increased professional staffing to assist legislators in gathering, processing, and assessing information. The essays in this volume examine the nature and workings of these staff through a systematic comparison of their backgrounds, norms, constraints, functions, and influences in various state legislatures. The book is particularly useful because, as the introductory review notes, most of the studies on legislative behavior to date have focused on congressional rather than state legislative action.

The book is organized into two parts. The first is largely descriptive, focusing on the origins and functions of legislative fiscal staffs in New Mexico, Florida, Michigan, and Illinois. The authors of these chapters are members of the fiscal staffs in their respective states. The unifying theme is that the role of the legislative staff is not to make policy but to provide legislators with the basic information to help them define the policy environment. Also noted is the increasingly important role these staffs play in legislative oversight.

The second part of the book examines the legislative staffs in Wisconsin, New York, and Texas from a somewhat broader perspective. These chapters evaluate the implications of increases in the size and number of legislative staffs and assess the influence of these staffs in the legislative process. Leif S. Hartmark's chapter on Wisconsin is a particularly fine blend of description and analysis.

The editors note that "legislative staff influence is the convergence of the intelligence, integrative, and innovative functions." Although legislative fiscal staffs play a significant role in developing a state's budget, the legislator is the chief policymaker and defines the staff roles that determine the staff-legislator relationship.

15:1.2/75-2

"Flexibility for Whom: The Case of Forced Savings in Budgeting for Higher Education," Anthony W. Morgan, *Educational Record,* Vol. 56, No. 1, Winter, pp. 42-47.

Forced savings, otherwise known as salary savings or turnover savings, is one state-level government strategy for reducing higher education budgets. Forced savings is usually treated as a deficiency appropriation in the budget: the institution is required to save and return this amount at the end of the fiscal accounting period. Thus, it becomes a mechanism for resource reallocation.

In this article, the author focuses on savings strategies used in the University of California and California State University and Colleges systems during the early 1970's. Forced savings is used as a lens through which the interorganizational relationships between the state, multicampus system, and campus levels can be viewed. The author concludes that the state, system, and campus administrators had similar reactions to forced savings in tending to avoid uncertainty and preserve flexibility by taking funds from another level of organization and to use savings as a device for influencing a subordinate level's allocation of resources. By specifying a forced level of savings, state-level administrators reduce their budget uncertainty by fixing the minimum level of lapsed funds. This strategy of uncertainty reduction is, in turn, repeated at the multicampus system and campus levels.

A major policy issue is how savings targets should be assigned. The author suggests three alternatives: (1) assign flat percentages to all subordinate units regardless of the variability in savings potential; (2) assign targets according to the ability to pay; (3) use differential savings targets to redistribute available resources among subordinate units. Other key policy questions raised are how to assess the effects of savings on the quality of services provided and how much flexibility each unit should have.

The author also notes the lack of incentives to carry forward balances. An obvious incentive is to allow the system and campuses to retain a portion of the resources saved. However, the state fears abuses of incentive systems. The author notes the despite the pitfalls, incentive systems are instrumental in promoting a healthy morale and a climate for change.

This article should be of particular interest to officials in educational institutions and state governments who are concerned with the management of budget reductions. The article gives considerable insight into state-institutional relationships.

15:1.2/73-1

"Statewide Reallocation Through Program Priorities," Edward H. Flentje and Steven B. Sample, *Educational Record*, Vol. 54, No. 3, Summer, pp. 175-184. Also **"Comment on 'Statewide Reallocation Through Program Priorities',"** Lyle B. Lanier, *Educational Record*, Vol. 54, No. 3, Summer, pp. 184-189.

These papers examine the relationship between state agencies and institutions in a situation where resources are suddenly scarcer than anticipated. Edward H. Flentje and Steven B. Sample provide a detailed case history of the 1972-73 budget cycle in Illinois from the point of view of the Illinois Board of Higher Education (IBHE). Lyle B. Lanier critiques the interpretation from the perspective of the University of Illinois. The wealth of case material and the contrast in perspectives make these two papers invaluable to anyone interested in the institutional consequences of state-level budget strategies.

Illinois higher education approached the 1972-73 budget cycle with some uncertainty in that the 1971-72 budgets had been pared by the Governor in June 1971 to a level comparable to the previous year. The IBHE adopted a process to establish high and low statewide priorities for higher education in order to bridge the gap between available resources and perceived needs. The program priorities approach to reallocation was an alternative to across-the-board cuts, freezes on various categories of expenditures, and programmatic moratoriums. In the process, the IBHE reallocated $24 million from low to high priority programs. Flentje and Sample answer three questions in the affirmative: Should reallocation take place? Should it take place programmatically? Should it take place on a statewide basis?

Lanier is extremely critical of the IBHE approach to the 1972-73 cycle. First, he argues that the statutory authority of the IBHE is limited to advising the appropriate board of control about existing programs and does not extend to the elimination of programs. Lanier analyzes why the IBHE rejected several alternative budget strategies, including the needs budget and the fixed base approach. He concludes that the program priority technique was not suitable and that the state's appropriation process made it impossible for the IBHE to enforce its specific program recommendations. Lanier also points out the communications and timing difficulties that arose in implementing the program priority technique.

15:1.2/73-2

Changing State Budgeting, S. Kenneth Howard, 372 pp. (Council of State Governments, Lexington, Ky.).

This volume examines the emerging trends in state budgeting, with an emphasis on the impact of planning-programming-budgeting as an administrative process that is heavily influenced by political considerations. Like most budgetary process studies, his book concentrates on the planning and spending sides of budgeting, giving little attention to the revenue side.

The author provides a general description of the state administrator's milieu and summarizes some characteristics of state budgeting. A particularly useful section deals with the intergovernmental context of budgeting, addressing the concepts of federalism, the states' responsibilities, and forms of sharing. There is also a discussion of capital budgeting, including the organizational arrangements used in state capital budgeting. The major portion of the book is directed toward budget reform, with an emphasis on PPBS as an approach to rational budgeting. The role of systems analysis is discussed in relation to program analysis. The author concludes that although the Federal model of PPBS is dead among state governments, the ideas underlying PPBS (adoption of a longer range view, emphasis on alternatives, evaluation of alternatives in terms of effectiveness, development of a capacity for more thorough systematic analysis) are alive in many states. The author also presents the political dimensions of the budgetary process from the perspectives of the governor and the legislature.

A frustrating feature of this book is that its descriptions and analyses of the state budgetary process are too general. Although the author clearly has had considerable contact with budgeters in many states, he has not woven examples of state practices into the discussion. Unless the reader has had prior experience with the budgetary process, particularly in several settings, the concepts presented may appear too abstract to relate to actual practice.

15:1.2/72-1

Whatever Happened to State Budgeting?, S. Kenneth Howard and Gloria A. Grizzle, eds., 503 pp. (Council of State Governments, Lexington, Ky.).

This excellent volume is a collection of 51 articles, essays, and excerpts from books concerning the theory and practice of budgeting. The contributions reprinted here are from a variety of sources, including professional journals in public administration, political science, and planning, and publications by the National Association of State Budget Officers and the Council of State Governments. Accordingly, the contents of this collection range beyond the budget process.

The articles are loosely structured around five themes: (1) scope of state budgeting; (2) the budgeter: role and relationships with other participants; (3) developing the basis for budget decisions; (4) techniques for the budgeter; and (5) innovation and change. The quality of the articles ranges widely, but the following "classic" articles or essays are included: "The Lack of a Budgetary Theory," by V.O. Key, Jr.; "Toward a Theory of Budgeting," by Verne B. Lewis; "The Road to PPB: The Stages of Budget Reform," by Allen Schick; "Roles and Symbols in the Determination of State Expenditures," by Thomas J. Anton; "The Systems Approach and Public Policy," by E.S. Quade; "Systems Analysis and the Political Process," by James R. Schlesinger; "Rescuing Policy Analysis from PPBS," by Aaron Wildavsky; "Planning and Predicting: Or What To Do When You Don't Know the Names of the Variables," by Leonard J. Duhl; and "Social Planning: The Search for Legitimacy," by Martin Rein. Having ready access to these articles alone makes the volume a welcome addition to the bookshelf.

15:1.2/72-2

Dollars and Sense: Budgeting for Today's Campus, Gene A. Budig, ed., 114 pp. (College and University Business Press, McGraw-Hill Publications Co., Chicago).

This book contains two essays that give the legislative and executive perspectives on state budgeting for higher education: "The Governor's Role in the Budget Process," by T.N. Hurd and Donald Axelrod, and "Legislative Expectations of the Budget," by A. Alan Post.

The essay by Hurd and Axelrod is an overview of policy issues considered by the executive budget staff, and is designed for the reader with little previous exposure to executive policymaking in the budget process. Included is a position description for the office of governor, with a discusssion of the executive power of appointment, the responsibility for assuring accountability and productivity, and the executive role in interstate relations. The authors stress the need for a planning process in higher education and for the proper coordination of the programs of multiple systems of higher education. They briefly examine the components of the operating budget, summarizing the policy issues associated with the technical aspects of the budget. There is a particularly good presentation of the policy questions raised by the executive budget office concerning capital budgets. In conclusion, the authors consider how the executive budget office staff assesses the administration's fundamental policy for higher education, and elaborate on the executive concern for financing and implementing the budget.

Post observes that planning and budgeting are the two most important legislative roles, with the budget being the principal planning document. In examining the flow of the budgetary process as seen by the legislative and legislative staffs, Post seeks answers to several questions: What planning and budget materials does the legislature receive and what form do these materials take? When does the legislature receive such materials, and in relation to what legislative processes? Which legislative organization receives the materials, to whom is this group directly responsible, and what staff capacity does it have for analysis? What roles do the higher education agencies and the governor play in such review? To what extent is legislative review integrated into the actual decisionmaking processes of the legislature so the members will have access to the analysis, along with sufficient confidence in it to assure its effective use in making policy decisions? Post notes that the relationship of the legislative staff to the partisan political structure of the legislature has an important bearing on the staff role in the budgetary process His presentation is enriched with examples of the variations in the budgetary processes in different states. In summary, this essay is an excellent introduction to the legislative side of budgeting.

15:1.2/71

Budget Innovation in the States, Allen Schick, 223 pp. (The Brookings Institution, Washington, D.C.).

Schick's book is a study of the two then most recent attempts to improve state budgeting: the introduction of performance budgeting in the 1950's, and the planning-programming-budgeting systems (PPBS) movement of the 1960's. The analysis of the historical development of these two budget innovations is excellent. Interestingly, Schick notes that PPBS advanced independently of public administration because of the infusion of the economic planning ethic into budgeting. Thus, where previous attempts at budget reform were concommitant with reorganization, PPBS had a new conceptual base dependent upon classic economics and planning notions of rationality rather than on political-administrative theories.

Performance budgeting, with its emphasis on activity classifications, performance measurements, and performance reports, sought to regroup expenditure accounts to conform more closely with organizational functions. Schick notes that the changes introduced by budgeting did not meet the potential. To highlight his observations, Schick provides three brief case histories of the development of performance budgeting in Maryland, New York, and Ohio.

Schick notes that, as of 1969, more than half of the states were either implementing or considering PPBS in some form. Significantly, in only one or two states had PPB worked its way into the decisionmaking process of state government. Schick provides extensive case studies of five state—California, New York, Wisconsin, Hawaii, Pennsylvania—that were the most advanced in implementing PPBS. In none of the five states was the implementation a clear-cut failure or success.

Schick observes that budget innovation will succeed only when the state reexamines the ways in which it uses its budget process. One of the first steps in budget reform is to reconstruct the budget control mechanisms so that the needs for control can be met while the budget machinery is revamped to include planning.

15:1.2/67

"Roles and Symbols in the Determination of State Expenditures," Thomas J. Anton, *Midwest Journal of Political Science*, Vol. 11, No. February, pp. 27-43.

Thomas Anton has developed a relatively simple yet powerful model to explain the manner in which state officials decide to spend public funds. His model uses the concept of the "role" to summarize the characteristic behavior of a state-level participant in the budget process. Once defined, the symbolic significance of the roles is assessed in terms of the impact on the budget process.

Within this model, state agency officials (such as institutional representatives) are seen as expansive; in all likelihood, they will request more money next year than is currently available to them. Budget review officials see their role as watchdogs of the treasury or as budget-cutters. These officials generally expect state agency requests to be expansive. Anton argues that the governors are "money providers" or "budget balancers," and only infrequently can be viewed as decisionmakers in the determination of state expenditures. (This characterization of governors was perhaps more accurate 10 years ago than today.) Finally, similar to governors, legislators are seen to participate in the search for new revenue rather than in the determination of state expenditures.

Anton observes that the participants in the budget process use a set of symbols to rationalize their role behavior. These rationalizations mask the true meanings of action. Agency administrators justify budget expansion on programmatic grounds or in the name of service; fact, the administrators are attempting to protect themselves against the consequences of a budget reduction in a no-increase budget that cannot withstand a cut. Budget review officials and governors justify budget reductions in terms of economy and efficiency; in effect, these officials are seen to be protecting a peculiar status. Governors and legislatures use both programmatic and management symbols in disguising action aimed at increasing revenues to balance budgets that show little evidence of either new programs or efficiency. In summary, the budget symbolizes responsibility; the cut, economy; and the increase, service.

Although the symbolic interpretation of political behavior has drawn some criticism, the wealth of insight presented in this article makes it "must" reading.

1.3 Federal Budgetary Process

15:1.3/80

Congress and Money: Budgeting, Spending and Taxing, Allen Schick, 604 pp. (The Urban Institute, Washington, D.C.).

This book analyzes in considerable detail the operation of the congressional budget process between 1975 and 1979. The Congressional Budget Act of 1974 altered budgetary roles and relationships in Congress and created a Congressional Budget Office to provide information and analyses to Congress. The book compares the pre-Budget Act behavior of legislative participants with current behavior and examines the patterns of cooperation and conflict that have arisen during the first 5 years of the new process. Schick's focus goes beyond budgeting to include the tax, appropriations, and authorization work of Congress.

The core research question that Schick addresses is: What happens to a budget process when it confronts Congress, and what happens to Congress when it must attend to new budget functions? He also attempts to answer three questions: Is the process working? Is the process working in terms of the routines and requirements laid down in the Budget Act? Has the budget process made a difference in terms of the levels of revenue and expenditure?

The book is divided into three parts. Part One reviews the budgetary conflicts that preceded the passage of the Congressional Budget Act of 1974 and describes the factors responsible for the new budgetary structure. This section details the terms of the new act and analyzes the roles and characteristics of the new committees and the Congressional Budget Office as

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originally formulated and as they have evolved over a 5-year period. Part Two deals with the way in which congressional budget resolutions are produced and reviews efforts to enforce budgetary discipline under the new procedures of the act. This section also examines the role of authorizing committees and the ways in which these committees interact with the budget committees and become involved in the budget process. In Part Three, Schick analyzes the relationships between the budget process and committees and the four preexisting centers of budgetary power—the House and Senate Appropriations Committes, the House Ways and Means Committee, and the Senate Finance Committee.

Schick ends the book with an assessment of the new budget process. He notes that most major congressional fights are over the margin of each year's budget. The major portion of the budget is determined by legislative decisions of prior years. Accordingly, the budget process controls the amount of fighting by limiting discussion to the large but relatively (to the budget base) insignificant margin.

This book contains more descriptive detail than most readers will want. However, Schick is one of the most insightful students of budgeting practices, and his observations are worth the effort. Also, although this book examines budgeting at the Federal level, the dynamics of the new congressional budget process may in fact anticipate future developments at the state level, especially in light of the trend toward larger legislative fiscal staffs.

15:1.3/79

The Politics of the Budgetary Process, Aaron Wildavsky, 311 pp. (Little, Brown and Company, Boston).

This book was among the first to report on the budgetary process broadly as a system of political interactions rather than as a set of technical accounting procedures. It is required reading for anyone who wishes to become familiar with the dynamics of the budgetary process. Although the focus of the book is on budgeting at the Federal level, the analysis developed applies to the process at the state and local levels as well.

Wildavsky first defines the term "budget" as seen from a number of different orientations, and then shows how various participants examine the political environment and make calculations that serve as the basis for budgetary decisions. He stresses the incremental nature of the budgetary process and places the participants of the process within a system of roles and perspectives to explain budgetary behavior. Within this framework, he examines the budget process through the strategies adopted by the participants, including strategies designed to capitalize on the fragmentation of power in national politics.

Wildavsky examines briefly the history and politics of budget reform and outlines how new procedures developed from traditional budgeting procedures. One chapter is devoted to the concept and implementation of a planning-programming-budgeting system (PPBS). The strengths and weaknesses of PPB are discussed, and the author explains why, in his view, PPB ultimately fails. The author offers an appraisal of existing budgetary practices and suggests major alternatives. He further maintains that the present budgetary process, though imperfect, performs much better than many observers have thought and has many features that are superior to the proposed alternatives. In particular, Wildavsky argues that future reform should concentrate on a more thoroughgoing incremental approach rather than a more comprehensive one.

Wildavsky concludes this work with an essay on the changing role of Congress, particularly in relation to the decline of guardianship of the Treasury Department. This trend is described in the context of trends in national budgeting in the modern democracies. Drawing on the British experience, the author discusses what reforms should and should not be undertaken to strengthen the role of Congress in the budgetary process.

An extremely useful appendix outlines the major steps in the Federal budgetary process.

15:1.3/78-1

"Agency Strategies and Executive Review: The Hidden Politics of Budgeting," Lance T. LeLoup and William B. Moreland, *Public Administration Review*, Vol. 38, May/June, pp. 232-239.

LeLoup and Moreland observe that the incremental theory of budgeting focuses on the stability of the budgetary process and describes why change is minimal. They contend that in assuming that the entire budgetary process is reasonably stable, incrementalists assume that the component stages of the process are also stable. The authors present empirical evidence to demonstrate that there is indeed considerable variation in agency roles and budgetary behavior.

The authors draw on data for Department of Agriculture agencies between 1946 and 1971 to illustrate their theses that agency strategies vary, that there needs to be further differentiation of the role of "guardianship" to understand the behavior of Federal departments and the Office of Management and Budget, and that roles and strategies have a differential impact on budgetary outcomes. Agency strategies are gauged in terms of agency assertiveness, as manifested in annual budget requests, agency innovativeness in the use of promotional devices and techniques, direct confrontation with reviewing bodies, attempts to avoid direct control, and efforts to increase discretion in the expenditure phase of budgeting. The authors hypothesize that the more assertive the agency, the lower the relative proportion of requests approved but the greater the absolute budget growth. The data support this hypothesis.

More interesting, however, is the role behavior observed in the budgetary process. The Office of Management and Budget appears to be more mechanical and regular in its budget cuts than either the Department of Agriculture or the Congress. The Department of Agriculture's role is to "balance the extremes," increasing agency requests in the least assertive category and reducing the most assertive requests more severely than either the Office of Management and Budget or the Congress. The authors also note that very assertive agencies will sometimes violate the unity of the executive budget and take their cases before Congress, where they are often successful in increasing their budgets. The authors point out that some agencies are in a better position than others to be assertive. The more aggressive agencies tend to have strong external support in the public, the President, or the Congress.

15:1.3/78-2

"Discretion in National Budgeting: Controlling the Controllables," Lance T. LeLoup, *Policy Analysis*, Vol. 4, No. 4, Fall, pp. 455-475.

This article examines notions of budget control at the Federal level, although the issues discussed are relevant for other levels of the budgetary process. Specifically, the article analyzes the concept of "controllability" and attempts to identify the actual discretion available to decisionmakers in annual budgeting.

LeLoup argues that the controllable/uncontrollable dichotomy is not a useful one. It indicates how budget items may be changed but not which items may be changed. A more fruitful approach, claims the author, addresses two questions: What are the parameters of annual budgeting and how can they be determined? Within these boundaries, where does potential discretion over expenditures exist?

In his analysis of budgeting behavior, the author observes that the emphasis on budgeting as an annual phenomenon may mask the multiyear nature of most spending decisions. Thus, incremental models of budgeting tend to minimize the fact that current decisions on revenue and spending totals can limit the availability of future resources and hence constrain subsequent allocations. Uncontrollable spending is examined in several components: (1) fixed cost, (2) multiyear contracts and obligations, and (3) entitlement programs and payments to states and individuals. LeLoup notes that the identification of the location of controllable expenditures is in itself insufficient to identify budgetary discretion. Political feasibility must also be considered. The controllable portion of the budget represents a set of commitments to ongoing activities that are difficult for policymakers to ignore or alter significantly.

LeLoup concludes that the Federal budget is locked in far more than the usual estimate of "75 percent uncontrollable" indicates; he estimates that between 90 and 95 percent of the budget is beyond control through annual manipulation. Also, at the Federal level, agency discretion in budget execution (i.e., through carrying over balances, timing expenditures, and obligating budget authority from prior years) represents an obstacle to executive and legislative control. The author believes that annual discretion in the national budget is sufficient because most important decisions now have a multiyear impact. A de facto multiyear budget process will probably develop into an explicit multiyear budget process in the future. In the short run, LeLoup concludes, we should not expect or advocate major reallocations.

15:1.3/68

The Politics and Economics of Public Spending, Charles L. Schultze, 143 pp. (The Brookings Institution, Washington, D.C.).

This collection of lectures is intended to demonstrate how systematic analysis can coexist with the political process. The framework for Schultze's analysis is the Federal budget process of the mid 1960's, when the use of planning-programming-budgeting (PPB) spread from its birthplace in the Department of Defense to the entire Federal Government. Schultze's objective was to examine how systematic analysis and long-range planning have been applied to the Federal Government's civilian programs.

Schultze contrasts the "political" or negotiation mode of decisionmaking, with is emphasis on incrementalism, with rational budgeting (in the form of PPB), with its emphasis on the examination of a wide range of alternative means toward some desired end, and he demonstrates how analysis can be used to support the bargaining model of decisionmaking. Although the emphasis throughout the book is on systematic analysis, the author demonstrates that he has an experienced sensitivity to the political environment. He firmly believes that the increasing complexity of social programs demands more analytical consideration in their design and management.

Schultze's arguments are very neatly presented. After tracing the evolution of budget techniques, he compares rational decisionmaking (PPB) with "muddling through," or incremental decisionmaking. The most important contribution of the book is the discussion of the role of analysis in political decisions and the future directions of analysis. By contrast, the author clearly understands the obstacles to implementing the formal PPB model in the Federal setting. Schultze concludes with some suggestions for political and administrative improvements in the decision processes. The emphasis here is on the analytical design of incentive systems, a context in which detailed decisions about programs can be made on a decentralized basis.

2.0 FORMULA BUDGETING

See: 3:2.3/79 **Cost Information and Formula Funding: New Approaches,** Richard H. Allen and James R. Topping, eds.

This monograph is largely the product of a conference concerned with the impact of cost information on statewide budgeting and planning. Conference participants recognized that with many state budgets determined in some way by enrollment-driven budget formulas, it was necessary to anticipate the budgetary impact of enrollment declines during the 1980's.

The monograph contains the text of addresses by two keynote speakers, Ohio State University president Harold L. Enarson's "The Uses and Abuses of Cost Information" and Maryland state legislator Frank B. Pesci's "An Overview of the Issues in Statewide Planning and Appropriation Processes and the Relationship of Cost Information to These Issues, From the Perspective of a State Legislator." It also contains case studies of formula use in Florida, Indiana, Washington, and Wisconsin.

Enarson warns of the limitations of cost information and emphasizes the need for policymakers to use means other than cost history alone to predict future funding needs. He suggests a budget approach that considers both fixed and variable costs. Pesci provides a brief overview of how state-level agencies assemble the higher education budget, using the State of Maryland for his example.

The best part of the monograph is the discussion of the four cases of formula usage. The Florida case examines the community college system cost study and the attempts to introduce a formula with fixed, variable, and semivariable cost components. Indiana's development and use of a base-plus budget system with marginal-costing concepts is discussed in some detail. The Washington case tells how the biennial Washington Unit Expenditures Study, an activity-based costing system, is used to guide budgetary policy. Finally, the Wisconsin case explains how that state's cost analysis is conducted and how the cost information is used in setting tuition and fee levels, in allocating financial resources among institutions in the University of Wisconsin system, and in funding of the UW system as a whole by the state.

The case studies balance the historical and political aspects of formula development with discussions of the technical elements of the cost studies and formulas. A number of policy issues are also presented. For example, the problem of determining what portion of the direct instructional budget should be considered variable is analyzed in the Indiana study. This case also notes that historical costs change as the amount of available revenue changes, and thus may not reflect normative costs. The cases also indicate that a totally realistic portrayal of costs is extremely expensive to accomplish, may lead to a very complex formula, and may threaten the understanding, and hence existence, of funding factors. Also, costs studies that reflect actual institutional cost behavior may encourage state-level officials to attempt to control the internal expenditures of institutions.

The authors conclude that to develop new budgeting approaches, there must be an impetus for change. Examples of pressures for change are a severe decline in enrollments, a severe loss of state revenues, and the intellectual interest of professional staffs and elected officials. The authors highlight the tradeoff between formula accuracy and simplicity, and observe that the desire to develop formulas that serve better during periods of enrollment decline will probably lead to more complex formulas. Finally, the authors believe that the fixed-and-variable cost approach as used in Florida and Wisconsin probably is the most promising for a period of enrollment decline.

This monograph is an excellent picture of the politics and technical problems of formula budgeting.

15:2.0/78-1

A Review of Selected State Budget Formulas for the Support of Postsecondary Educational Institutions, Cynthia A. Linhart and John L. Yeager, 114 pp. (Office of University Planning, University of Pittsburgh, Pittsburgh, Pa.).

In reexamining its Master Plan for Higher Education, the Commonwealth of Pennsylvania reviewed alternative formula budgeting techniques for possible adaptation in Pennsylvania. This report, which is the staff summary of a task force review, is an excellent overview of formula budgeting in this country. The major focus of the report is the technical features of budget formulas, with some discussion of the processes associated with the development, implementation, and maintenance of budget formulas.

Most of the report is devoted to summarizing the literature on the design and structure of state budget formulas and reviewing budget formulas from 10 states: Alabama, Louisiana, Michigan, New Mexico, Ohio, Oklahoma, Tennessee, Texas, Virginia, and Washington. The budget formulas were compared according to eight major categories of institutional activity, following the framework established by the National Association of College and University Business Officers for Educational and General Expenditures. This comparison classified each formula according to three criteria: (1) general approach (i.e., total entitlement or line item); (2) method of calculation (i.e., staffing standard, workload, or percentage base); and (3) major components (i.e., the specific variables addressed in the formula). An appendix contains a written description and a mathematical representation of each of the 10 state budget formulas.

The discussion of the development, implementation, and maintenance of budget formulas is brief and is largely a summary of the monograph by Meisinger (15:2.0/76-1). The report provides recommendations for a Commonwealth of Pennsylvania budget formula, focusing primarily on its technical aspects. However, the recommendations do contain a consideration of the *process* by which the formula might be implemented.

15:2.0/78-2

Formula Funding in the SREB States, David S. Spence, 23 pp. (Southern Regional Education Board, Atlanta, Ga.).

Spence summarizes the formula funding practices in the 14 states belonging to the Southern Regional Education Board and notes the changes that have occurred in the formulas since the 1973-74 academic year. Data from the 1977-78 academic year are compared to the 1973-74 formulas as reported by Francis Gross (see 15:2.0/73-2). The five basic functions analyzed are: instruction, academic support, general administration, libraries, and plant operation and maintenance.

Spence indicates that 12 of the 14 states use some type of formula funding system (the exceptions being North Carolina and West Virginia). In comparing the more recent formulas with the earlier ones, he notes that, over the 4-year period, the complexity and comprehensiveness of the formulas generally has increased.

In discussing his perceptions concerning the future directions for formula funding, Spence assumes that states will continue to rely on budget formulas as enrollments level and decline. This behavior is explained in part by the anticipated increase in emphasis on accountability and cost-effectiveness. Also, the author observes that the increased interest in accountability is manifested in the transition from incremental budgeting to program budgeting and zero-base budgeting at the state and Federal levels. Spence foresees that formulas will continue to become more complex to satisfy the pressures for greater accountability.

Spence also argues that as institutions agressively seek their "fair share" of the higher education budget in the face of declining resources for higher education, they will turn increasingly to budget formulas to justify their claims. He believes that during relatively tight fiscal times, funding will be based on a more rational knowledge of the cost and expenditure patterns of higher education institutions. Finally, Spence notes that several states are moving toward a system of marginal cost funding whereby variable and fixed-cost bases are distinct, and he expects more institutions to support marginal cost funding as their enrollments begin to decline.

This is a very good summary and comparative analysis of budget formulas used in the SREB states and is recommended for the reader who needs to delve into some of the more technical aspect of the formulas.

15:2.0/76-1

State Budgeting for Higher Education: The Uses of Formulas, Richard J. Meisinger, Jr., 266 pp. (Center for Research and Development in Higher Education, University of California, Berkeley).

This monograph is one of a series that summarizes the results of a 3-year, 50-state study of the processes used by state agencies to formulate the budgets of colleges and universities. This study provides comparative analyses of the historical development and use of instructional budgetary formulas in California, Illinois, and Texas. The comparative historical analyses are used to develop a framework that explains the adoption and use of budgetary formulas.

The central analytical and theoretical questions addressed by the study are: (1) What strategies and counterstrategies are adopted by each organization in a system of higher education that employs budgetary formulas (2) What are the consequences of the organizational strategies and counterstrategies for uncertainty reduction and the locus of budgetary control? (3) What functions are performed and what dysfunctions result through the application of budgetary formulas? The primary emphasis is on the interorganizational relationships between executive and legislative budget agencies, higher education coordinating agencies, and institutions of higher education. The work is an extension of Miller's 1964 pioneering study, *State Budgeting for Higher Education: The Uses of Formulas and Cost Analysis,* but focuses more on the political dynamics of formula use than on the technical details of the formulas themselves.

The principal findings of the study indicate that the introduction of a formula into a budgetary process requires sources of support for the formula concept, an organizational framework for implementation, and a technical base upon which to ground the formula. Changing a formula requires some pressure for change (whether internal or external to the system of organizational participants), an organizational framework for adjustments, and technical and data bases for the altered formula. The factors that appear to account for the dissolution of formulas are the condition of the state economy, the degree to which the formula is manipulated by the various actors, and the inadequacies of interorganizational communications. The study examines each of these factors in some detail.

The author concludes that all strategies employed by the state agencies, coordinating agencies, and institutions to reduce uncertainty in organizational activities follow two model patterns: the shifting of uncertainty to other levels, and the cumulation of excess resources in anticipation of future contingencies. Furthermore, one level's strategies have parallel consequences for other levels: the locus of budgetary control is shifted, and the balance of slack resources at each level is upset.

15:2.0/76-2

"Formula Budgeting: Requiem or Renaissance?" Charles E. Moss and Gerald H. Gaither, *The Journal of Higher Education*, Vol. 47, No. 5, September/October, pp. 543-563.

This article is an excellent capsule summary of the formula budgeting concept. The authors outline the basic classifications of budget accounts and briefly discuss the historical events leading to formula development. They define the term "budget formula" by drawing upon the earlier work of James L. Miller, Jr. Current formulas are categorized according to the basic computational method used: the rate-per-base factor unit, a percentage of base factor, and a base-factor position ratio with salary rates.

The most important contribution of the article is the summary of the advantages and disadvantages of formulas. Among the advantages, formulas provide an objective cost and productivity measure for comparison between institutions, provide for a more equitable distribution of resources, help to minimize interinstitutional and state-institution conflict, and ensure that higher education gets its fair share of state resources. The disadvantages include the inadequacy of the linear approach to funding in steady-state and declining enrollment situations, the fact that formulas do not explicitly address program quality, the leveling effect of formula-generated support, and the failure of most formulas to recognize and fund nontraditional learning or continuing education activities. The discussion of formula funding during enrollment downturns is particularly good.

The authors are optimistic that formulas will continue to be used to fund higher education. Despite the disadvantages of formulas, no other method currently meets as many of the needs of the budget process. However, formulas will have to be adjusted to ensure that institutional support is not seriously eroded when enrollments level or decline, and qualitative factors will have to be introduced, especially when enrollments decline. Finally, the authors note that current enrollment-driven formulas are not adequate to support outreach activities under conditions of stable and declining enrollments.

15:2.0/75

"Constrained Ratio Approach to Allocating Instructional Resources," William B. Simpson, *Socio-Economic Planning Sciences*, Vol. 9, No. 6., pp. 285-292.

This article addresses the question of whether there is anything inherent in the way resources are allocated to an institution that would restrict faculty in developing new teaching methods. The author examines the efficiency and innovation of four allocative approaches to budgeting, all of which are formula procedures. He observes a tendency for inefficiencies to lead to additional budget support and for temporary accommodation to lead to lesser support. Moreover, the author notes, "operational flexibility in the use of funds . . . can at most assure the *opportunity* for innovation. Whether or not there is an *incentive* to innovate will depend in part upon what the effect is of the innovation on the resources available in the subsequent years." The focus of the analysis is the formula used by the instruction-oriented California State University and Colleges system.

To improve the current budgeting procedures, the author proposes a constrained ratio approach in order "to arrive at a level of instructional faculty staffing for an institution for its continuing programs by an approach which leaves the institution with the opportunity and incentive to exercise discretion as to the best operational use of the resources allocated to it, while protecting the legitimate concern of the governing board . . . as to the expenditure of resources." The proposed mathematical economic model for generating the required number of faculty positions calls for a formula with adjustable weights to be applied to projected enrollment at different levels of instruction. Adjustments in the weights would be made by individual academic departments to reflect the mix of instructional modes employed by the department. The author argues that the model encourages the effective use of resources because it allows for greater awareness and consideration of the costs of alternative instructional methodologies at the institutional level.

The mathematical model is clearly explained, and the discussion points to a number of important policy issues that should be addressed when developing any budget allocation procedure.

15:2.0/73-1

"Formula Budgeting on the Down Side," W.K. Boutwell, pp. 41-50 in *Strategies for Budgeting*, New Directions for Higher Education No. 2 (Jossey-Bass, San Francisco).

This brief article discusses the difficulties in applying existing budget formulas in times of leveling or declining enrollments. The author notes three features of formulas that are harmful to institutions when enrollments decline. First, most formulas are based on the average cost per student and hence are linear in nature. The problem is that linear formulas do not recognize the economies of scale principle (downward sloping average cost curve). Second, most formulas have been adjusted downward because of the economies of scale associated with large institutions. As fiscal demands generated by increasing enrollments exceeded resources, formula ratios were increased to reduce resource demands. Third, most formulas are based on the number of students at different levels of instruction and ignore differences among disciplines or programs. In particular, many formulas ignore the number and variety of disciplines.

Also considered are management adjustments that must occur at the institutional level along with budget reductions. The adjustments discussed include personnel reductions, changes in policies governing tenure and promotion, and increased faculty development. The author concludes that (as of 1973) the formulas, planning procedures, and management policies of most institutions are still expansion-oriented. Regarding formulas, the author does not propose solutions to the problems other than to indicate factors to be considered in reworking existing formulas.

15:2.0/73-2

A Comparative Analysis of the Existing Budget Formulas Used for Justifying Budget Requests or Allocating Funds for the Operating Expenses of State-Supported Colleges and Universities, Francis M. Gross, 114 pp. (Office of Institutional research, University of Tennessee, Knoxville).

This report is an excellent summary of the technical aspects of budget formulas in use during 1972-73 or 1973-74. The author surveyed all 50 states to assess the extent to which budget formulas were used and found that 25 states used formulas that conformed to his definition. The following observations were also made: 21 states applied formulas statewide; 23 states practiced zero-base budgeting while 2 budgeted incrementally; and 21 states used formulas to justify budget requests while 4 used them for allocating appropriated funds among institutions.

The author provides a detailed comparative analysis of each formula with respect to the following functional budget areas: instructional and departmental research; organized activities related to instruction; libraries; general administration and general expense; organized research; extension and public service; and physical plant operation and maintenance. He also recognizes the base (variable) and formula (fixed) factors used, the methods of computation, and the extent of differentiation among academic areas, levels of instruction, and institutions. He classifies formulas according to three basic computational methods: (1) rate-per-base factor unit; (2) percentage base factor; and (3) base factor-position ratio with salary rates.

The author establishes a set of general standards of formula acceptability and seeks to evaluate the various states according to them. This rating is not completely successful because there is an insufficient discussion of the nontechnical dimensions (e.g., political or historical factors) that influence formula development.

One particularly interesting observation is that 8 states used formulas to support an "equalization policy" wherein all institutions were supported from the same formula base, while 13 states followed a funding policy that differentiated among institutions according to mission or location. The author also draws an important conclusion in his study: no single formula or combination of formulas could be designated as a national model because no such device could reflect the diversity of institutional types and state systems of higher education. Finally, the guidelines proposed for developing and applying budget formulas are essential reading for anyone involved in this activity.

3.0 PLANNING-PROGRAMMING-BUDGETING

See: 29:2.2/73-2 **Program Budgeting: Universities,** Ohio Board of Regents.

This volume is one of a series of manuals designed to make higher education administrators more aware of improved management techniques. It contains general guidelines, principles, and broad recommendations for good management within universities and colleges, rather than detailed and specific procedures. The manual should be considered a primer for those with no previous experience with program budgets in the college or university setting.

The manual has two key sections and a set of technical appendixes. The first section examines the steps in developing a program budgeting system. The stages are presented in cookbook fashion: identfy all sources of funds, relate funds to expenditure accounts, develop clear-cut departmental responsibility, translate program plans into departmental budgets, monitor income and expenditures, and identify goals and objectives. This section identifies a program structure, discusses the problems of identifying inputs and outputs, emphasizes the importance of income projections, and demonstrates how to translate program decisions into organizational budgets. The program and costing structures discussed are based upon National Center for Higher Education Management Systems (NCHEMS) products.

The second major section outlines the implementation of a program budget. The principles are presented in terms of internal considerations, external considerations, staff resources required for program budgeting, the information data base and its maintenance, and resource allocation analytical aids.

The technical appendixes include: the integration of a sample line-item budget with a program budget; the NCHEMS Program Classification Structure; a discussion of program measures; the advantages and disadvantages of various budget preparation models (very useful); an example of management by objectives and evaluation; a sample budget cycle and timetable; sample program budget data profiles; and a brief summary of NCHEMS products. The manual contains a complete glossary of budget terms.

15:3.0/72-1

PPBS in Higher Education Planning and Management: From PPBS to Policy Analysis, Frederick E. Balderston and George B. Weathersby, 106 pp. (Ford Foundation Program for Research in University Administration, University of California, Berkeley).

This report discusses how the principles of planning-programming-budgeting systems (PPBS) have been adapted to the realm of higher education. The report has three principle sections. The first summarizes the principles of PPBS and traces the Federal and state experience with PPBS in the United States, including the role that the National Center for Higher Education Management Systems (NCHEMS) has played in introducing features of PPBS into higher education. Further, the authors discuss the applications of PPBS to postsecondary education. Perhaps the most significant observation made in this section is that the activity-oriented view of programs and program elements (e.g., department, school, or college organizational units defining program) rather than the objective-oriented view (which focuses on output measures) has governed much of the subsequent development of PPBS in higher education.

The second section, probably the most interesting, explores the concepts of PPB by examining how it was implemented by the multicampus University of California. By 1971, the use of PPBS by the State of California to justify and negotiate the allocation of resources, and by the University of California for internal resource distribution and priority allocation, had diminished considerably. Other forms of analysis and decisionmaking displaced much of the PPB structure originally envisioned by participants in the budget and planning processes.

The third section asks how policy analysis can be applied in the academic setting. The analytical base for policy analysis is outlined, including information systems and analytical models. To demonstrate how these tools are employed, the authors present a detailed case study of year-round operations at the University of California.

In summary, the authors conclude that the benefits to be gained from the formalism of PPBS may not offset the costs of implementing the ponderous PPBS machinery. However, the use of analytical techniques aimed at specific policy questions can prove to be of considerable value to higher education administrators.

15:3.0/72-2

Planning-Programming-Budgeting: A Systems Approach to Management, Fremont J. Lyden and Ernest G. Miller, eds. 423 pp. (Markham Publishing Co., Chicago).

This book contains 21 papers, all of which are reprinted from other sources. The papers are organized into eight sections: "Planning-Programming-Budgeting Systems (PPB) in Perspective," in which PPB is considered in terms of its historical and institutional settings; "Budgeting and the Political Process," which addresses how PPB relates to the political process; "The Program Planning-Evaluation Base of PPB"; "Program Design: Analytic Techniques," which explains the rationale underlying three of the major analytic techniques used in the PPB approach; "Relating Goals to Systems," which examines the problem of crosswalking information; "Implementing PPB," which discusses the problems and experiences involved; and "PPB: Critiques and Prospects," which addresses the potential of PPB in the context of various schools of criticism.

The introduction by the editors is particularly thoughtful. They note that the first problem facing an implementing organization is whether to direct initial attention to developing a program structure or to focusing analytical skills to be used for specific program issues. Directing attention to skills development without first developing a goals structure can be inefficient. On the other hand, developing a program structure is a difficult task. The editors observe that one question facing developers of a program structure is: Should a program format be developed which will replace existing budget formats? It is a question that must be answered carefully because different formats yield different kinds of information. The editors content that another problem with implementation relates to analytic methods. The weight of systematically analyzed evidence is likely to draw attention away from those considerations which cannot be analyzed rigorously.

Michael J. White's concluding paper, "The Impact of Management Science on Political Decision Making," is an excellent summary of the critiques of PPB. White also makes predictions on the future directions of management science and operations research in civilian politics.

15:3.0/71

The Budget's New Clothes: A Critique of Planning-Programming-Budgeting and Benefit-Cost Analysis, Leonard Merewitz and Stephen H. Sosnick, 318 pp. (Markham Publishing Co., Chicago).

This book, which is one of the most thorough critiques of PPB available, draws on much of the extant PPB literature. The authors discuss the five elements of PPB: program accounting, multiyear costing, detailed description of activities, zero-base budgeting, and the quantitative evaluation of alternatives (or cost-benefit analysis). The discussion is framed by the Bureau of the Budget guidelines for PPB.

The authors devote a large part of the book to an examination of cost-benefit analysis. They survey the methods that have been suggested for calculating benefits of particular types of expenditures, including among others: navigation, irrigation, flood control, health, and academic and vocational education. Two case studies of large public investment projects are examined using cost-benefit analysis: the U.S. Supersonic Transport, and the California Water Plan. The authors are pessimistic about the usefulness of cost-benefit analyis for projects of such size and complexity. Also, the criterion most often used in cost-benefit analysis gives exclusive attention to economic efficiency, but it is difficult to reach agreement on an alternative criterion.

The authors note some positive features of PPB: (1) the grouping of organizations by function is one way to obtain output-oriented cost information; (2) the estimation of future expenditures is useful in special cases when a multiyear commitment is made; and quantitative evaluation is reasonable when it is necessary to prescreen policy alternatives. They also observe that preparing alternative budget requests would combine the best features of detailed description and zero-base budgeting.

The negative conclusions reached are that it is unwise to impose program accounting, to project future expenditures for established programs, to prepare statements of purposes, to justify budget requests without reference to previous appropriations levels, or to perform quantitative analyses for all situations. The authors argue that program accounting generates information of limited value because it reflects arbitrary cost allocations. Both multiyear costing and zero-base budgeting are viewed as costly, especially when compared with alternative approaches. Quantitative analysis is seen to be more effective in choosing among projects than in deciding whether or not to undertake them.

15:3.0/70-1

Why Planning, Programming, Budgeting Systems for Higher Education? James Farmer, 24 pp. (Western Interstate Commission for Higher Education, Boulder, Colo.).

This brief volume is concerned with the kind of results that can be expected from the use of PPBS in higher education. The conceptual difficulties involved in applying the PPBS techniques—when outputs cannot always be identified and are the product of different joint inputs—are recognized. Knowing the limitations of the system adds strength to the author's several examples of the effective uses of PPBS: to provide additional insight into program changes by identifying resource requirements; and to develop program costs to improve understanding of objectives and outputs. Three methods of implementing PPBS are listed: through planning studies, evolutionary development, and the "turn-key" changeover.

15:3.0/70-2

Planning, Programming, Budgeting for Ohio's Public Institutions of Higher Education, John D. Millett, 216 pp. (Ohio Board of Regents, Columbus).

In setting forth certain common factors or aspects of planning-programming-budgeting for Ohio's public institutions of higher education, the author emphasizes that the Ohio Board of Regent's position is not to prescribe a standard pattern of purpose, organization, and output for any individual institution. The Board urges only that patterns of purpose, organization, and output be consciously determined and clearly delineated by individual institutions.

The first chapters describe the general purposes of higher education and its inherent organization to utilize resources and establish objectives. Some rather straightforward quantitative measures of the outputs of a higher education enterprise are described, together with associated programming procedures. For the purposes intended, the key chapters on budgeting inputs for current operations and the planning and programming of capital improvements are adequate. A more rigorous defense of suggested standards would, however, be welcome.

15:3.0/69-1

Program Budgeting: Program Analysis and the Federal Budget, David Novick, ed., 382 pp (Holt, Rinehart & Winston, New York).

This book is an integrated collection of essays by 11 authors who examine the principles of program budgeting and its practical application. The editor presents an introductory chapter on the origin and history of program budgeting. The remainder of the book is organized into three parts.

Part I discusses the role of budgeting within the larger scope of governmental decisionmaking. Previous efforts at budget reform are detailed as background to a discussion of the conceptual framework of program budgeting. Particular attention is given to the use of cost-benefit analysis, the most prominent analytical tool in the program budgeting arsenal.

Part II traces the development of program budgeting in the Department of Defense. The authors discuss a limited number of illustrative examples of how the concept can be adapted to other areas of the Federal Government, including space, transportation, natural resources, education, and health. The emphasis in this section is on the contribution that program budgeting makes in structuring the problem and in assembling and analyzing statistical data.

Part III addresses the implementation and operation of the program budget. The focus is on potential problems and limitations involved in the implementation of program budgeting, and on ways to overcome these deficiencies. The essays by Roland N. McKean and Melvin Anshen ("Limitations, Risks, and Problems") and George A. Steiner ("Problems in Implementing Program Budgeting") are particularly insightful. This section concludes with a discussion of the implications of program budget operations for the organizations and individuals whose works would be most affected by it.

15:3.0/69-2

"Symposium on PPBS Reexamined," *Public Administration Review,* Vol. 29, No. 2, March/April, pp. 111-202.

This symposium, composed of eight papers, is a follow-up to the *Public Administrative Review* 1966 PPBS Symposium (15:3.0/66). Allen

Schick's paper, "Systems Politics and Systems Budgeting," continues with the basic message: incremental change through the interaction of partisan interests is inadequate for dealing with the complexity of problems in the United States today. Schick contends that analysis must be applied to these problems and that planning-programming-budgeting systems are one way of doing this. Bertram M. Gross, in "The New Systems Budgeting," presents an overview of program budgeting, noting in particular that it must be reshaped to fit different conditions and environments and that PPBS is an analytical framework rather than a technique. Yehezhel Dror comments upon the Schick and Gross papers, observing that PPBS must be considered within a broad framework of efforts to improve the public policymaking system.

C.W. Churchman and A.H. Schainblatt present a particularly insightful paper on "PPB: How Can It Be Implemented?," in which the empirical focus is on state-level implementation. What makes the paper very interesting is that Churchman and Schainblatt show how an analyst tries to look at his organization and how this analyst interacts with the managers.

Aaron Wildavsky plays the role of devil's advocate in "Rescuing Policy Analysis from PPBS." This is another of Wildavsky's papers that has become a classic, and it is recommended reading for all people interested in budgeting. Wildavsky holds to his contention, made 3 years earlier, that PPBS would run up against serious difficulties. He explains why the Department of Defense was a bad model to use for the governmentwide implementation of PPBS. Wildavsky goes so far as to say that no one knows how to do program budgeting, and argues that the fixation of PPBS on program structure leads to an emphasis on data collection at the expense of policy analysis.

15:3.0/66

"Planning-Programming-Budgeting Symposium," *Public Administration Review*, Vol. 26, No. 4, December, pp. 243-310.

This symposium contains six papers on various aspect of PPB: "The Road to PPB: The Stages of Budget Reform," by Allen Schick; "Toward Federal Program Budgeting," by Werner Z. Hirsch; "The Planning-Programming-Budgeting System: Rationale, Language, and Idea-Relationships," by Samuel M. Greenhouse; "A Management Accounts Structure," by Francis E. McGilvery; "The Program Budget and the Interest Rate for Public Investment," by Robert L. Banks and Arnold Kotz; and "The Political Economy of Efficiency: Cost-Benefit Analysis, Systems Analysis, and Program Budgeting," by Aaron Wildavsky.

The papers by Schick and Wildavsky have become classics and should be read by anyone interested in budgeting. Schick traces the evolution of budgetary reform in the United States through three distinct stages—control orientation, management orientation, and the planning orientation—and notes that with PPBS, the budget orientation shifts from incremental to comprehensive, the emphasis in budgeting shifts from justification to analysis, and the usual bottom-to-top information and decisional flow is reversed.

Wildavsky is perhaps the foremost critic of PPBS, and some of the reasons are established in his paper. He examines the underlying economic and political assumptions of cost-benefit analysis, discusses the limitations of cost-benefit analysis, and argues that cost-benefit analysis has had mixed results. Program budgeting is viewed as a form of political systems analysis. Consequently, Wildavsky discusses the underpinnings of systems analysis, noting that a distinguishing feature is that the objectives are either not known or are subject to change. Wildavsky concludes that even with a modest level of cost-benefit analysis, it becomes difficult to maintain pure notions of efficiency. Moreover, he believes that economic rationality cannot displace political rationality.

4.0 ZERO-BASE BUDGETING

15:4.0/78

"Zero-Base Budgeting in Georgia State Government: Myth and Reality," Thomas P. Lauth, *Public Administration Review*, Vol. 39, No. 5, September/October, pp. 420-430.

Recently, considerable attention has been directed toward the use of zero-base budgeting techniques in Georgia State Government. Georgia was probably the first major public sector setting to introduce zero-base budgeting, and much has been made of its successful implementation. Thomas Lauth's article summarizes his intensive research into the implementation process.

Lauth argues that zero-base budgeting has been only marginally effective in Georgia and that the initial claims made on behalf of the technique were exaggerated. He notes that the actual use of zero-base budgeting was substantially different than the caricature presented by Jimmy Carter as Governor of Georgia and as presidential candidate. In Georgia, zero-base budgeting is a set of budget preparation techniques designed to improve managerial control over agency funding requests. Budget requests for programs are formulated as decision packages, which are reviewed and ranked in order of priority at each operating level within an organization. It is assumed that the ranking process will focus attention on those packages at the margin.

Lauth collected his data largely through interviews. Most respondents described their approach to budgeting as incremental, with little attention directed toward the budget base. Programs and agencies are not on trial for their lives annually. Lauth identifies six political contraints on the budgetary

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process that promote incremental approaches to budgeting in Georgia: (1) constitutional or statutory requirements; (2) public expectations that governmental activities will be continued at close to existing levels; (3) demands from interest groups concerned with the funding of new programs or the protection of existing ones; (4) the differing roles of central budget office personnel and agency budget officers; (5) legislative budget practices and procedures; and (6) the requirements of intergovernmental grant-in-aid programs.

Apparently zero-base budgeting has improved the quality and quantity of information available to managers about the agency operations, in part because it requires greater justification for funding requests than before. Also, zero-base budgeting has spawned a greater interest in evaluation.

15:4.0/77

Compendium of Materials on Zero-Base Budgeting in the States, *Subcommittee on Intergovernmental Relations of the Committee on Government Operations, United States Senate, 384 pp. (U.S. Government Printing Office, Washington, D.C.).*

The compendium contains 16 excerpts or entire papers and documents dealing with the implementation of zero-base budgeting, primarily at the state level. The quality of the entries varies widely from thorough research pieces to state-level instructions for preparing and submitting budget requests. However, for the reader who is not yet disillusioned by the gap between the budget process improvements promised by ZBB and the actual results, this volume will provide a reasonably well-rounded education.

The volume includes Allen Schick and Robert Keith's "Zero Base Budgeting in the States," a summary of a national survey of ZBB practices in state government as of 1976. The study is largely descriptive, presenting summaries of the experiences of states and experiences and intentions of non-ZBB budgeting states. Schick and Keith note that ZBB, in practice, is more a form of marginal analysis than a requirement that the budget be assembled from the ground up each budget cycle.

The compendium also includes the 1970 Peter A. Pyhrr article, "Zero-Base Budgeting," which stimulated Jimmy Carter to introduce ZBB techniques into Georgia State Government. The paper is brief, but provides a good sampling of Pyhrr's early ideas on the subject. Something of a counterbalancing perspective appears in Aaron Wildavsky and Arthur Hammann's classic, "Comprehensive Versus Incremental Budgeting in the Department of Agriculture." Although they analyze comprehensive budgeting experience rather than one utilizing zero-base budgeting, Wildavsky and Hamman identify a number of weaknesses that are relevant to either situation.

The volume contains indepth analysis of the implementation of ZBB in three states. Excerpts from George Samuel Minmier's "An Evaluation of the Zero-Base Budgeting System in Governmental Institutions," indicate that the introduction of ZBB improved the budget process very little, if at all. Similarly, an excerpt from Roy Lee Hogan's master's thesis, "Zero-Base Budgeting: A Rationalistic Attempt To Improve the Texas Budget System," notes that the Texas ZBB experience was not particularly successful. Michael J. Scheiring is somewhat less objective in discussing the New Jersey experience, "Zero-Based Budgeting in New Jersey," but points out a number of shortcomings of the system.

15:4.0/73

Zero-Base Budgeting: A Practical Management Tool for Evaluating Expenses, Peter A. Pyhrr, 231 pp. (John Wiley & Sons, New York).

This book is the original "bible" for administrators interested in the implementation of zero-base budgeting systems. For those policymakers who still believe that ZBB can make good on its promise to revitalize more traditional budgeting processes, this book is required reading. However, there is an expanding body of literature that identifies the serious obstacles encountered by states, agencies, and organizations in implementing zero-base budgeting.

Pyhrr's book is organized into 10 chapters and 2 appendixes. Chapter 1, "The Zero-Base Budgeting Process," and Chapter 2, "Implementation Problems and Benefits of Zero-Base Budgeting," present an overview of the methodology. Chapter 3, "Where Should Decision Packages Be Developed," Chapter 4, "Format of Decision Packages," and Chapter 5, "Procedures for an Effective Ranking Process," discuss the creation and ranking of decision packages and the discrete activities and functions that are the basic building blocks for ZBB. Chapter 6, "The Dynamics of the Process," describes how decision packages can be modified or deleted without upsetting other packages or rankings, how decision packages for new activities or programs can be added, and how rankings can be altered to reflect new priorities. Chapter 7, "Managing the Zero-Base Budgeting Process," discusses the integration of ZBB into the broader administrative activities of an organization.

The similarities and differences between zero-base budgeting and planning-programming-budgeting are outlined in Chapter 8, "Zero-Base Budgeting and PPB." Pyhrr discusses the problems of implementing PPB, and argues that ZBB can be used to fill the critical gaps and reinforce PPB. However, he does not identify the problems that might be experienced when implementing zero-base budgeting. Chapter 9, "Computer Applications," describes how to use a computer to process a large-volume zero-base budget system. Finally, Chapter 10, "Zero-Base Budgeting and the Management Process," provides an overview of the impact of zero-base budgeting on the continuous effort to improve operations and profitability.

Pyhrr draws on examples from his experience at Texas Instruments and from the experience of the State of Georgia. These examples are helpful in understanding some of the more technical aspects of the zero-base budgeting process, but omit the broader political context within which the budget is developed and implemented. This omission is significant, because it indicates an insensitivity to the real constraints that an administrator will experience in attempting to implement zero-base budgeting.

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Student Characteristics and Development

Alexander W. Astin
assisted by Patricia P. McNamara

At all levels of higher education, the decisions of administrators and planners regarding policies, programs, and practices affect students. Far too many educational decisions appear to be made without reference to their probable and often predictable effects on student development. The literature reviewed here consists of research and descriptive studies that have examined student change and development during the undergraduate years. While some authors specifically discuss the implications of their findings for educational planning and policy and present recommendations, others do not. Nonetheless, informed planners should be familiar with these studies and their relevance to the planning function.

Although the literature on the impact of college on students is voluminous, much of the research is limited in scope and suffers from methodological inadequacies. To facilitate access by educational planners and administrators to studies in this topic area, developmental studies of general interest and relevance have been selected and important data bases, analyses, and tabulations are presented. References were selected for their focus on student change and development in college, particularly in the areas of aspiration and achievement.

Developmental Studies. The major studies of student development do not follow a pattern that permits classification by such factors as outcome criteria, student characteristics, or types of institutions. Many studies involve multiple outcome criteria (both cognitive and affective), diverse student populations, and a variety of institutional types. Major studies do vary, however, in terms of the investigator's orientation toward the independent variables (college environmental characteristics). For classification purposes, three major categories can be identified: (1) multi-institutional studies that examine the impact on students of institutional characteristics, such as size and control; (2) studies that focus on the impact of individual institutions (usually one or a limited number); and (3) general developmental studies that do not focus primarily on the comparative impact of institutions or institutional characteristics.

Descriptive Studies and Data Sources. Compendiums of normative data and analyses of descriptive student data are useful in defining student characteristics and in examining student change and development during college. The data sources section briefly describes important data bases that are available and can provide information relevant to the topic area.

Other important literature related to this topic area can be found under Topic 4, Educational Opportunity; Topic 17, Student Financial Assistance; Topic 18, Work and Education; Topic 19, Admission/Articulation/Retention; Topic 22, Community Colleges; Topic 24, Curriculum; Topic 34, Lifelong Learning; Topic 37, Student Affairs; and Topic 38, Teaching and Learning.

TOPIC ORGANIZATION

16 Student characteristics and Development
- **1.0** Developmental Studies
  - **1.1** Impact of Institutional Characteristics
  - **1.2** Impact of Individual Institutions
  - **1.3** General Developmental Studies
- **2.0** Descriptive Studies
- **3.0** Data Sources

1.0 DEVELOPMENTAL STUDIES

1.1 Impact of Institutional Characteristics

16:1.1/81

Minorities in American Higher Education, Alexander W. Astin (Jossey-Bass, San Francisco).

This empirically based report assesses the progress that American Indians, Blacks, Chicanos, and Puerto Ricans have made in higher education over the past decade or so, examines their current status, identifies remaining barriers to equitable representation, and suggests ways in which these barriers can be dealt with most effectively. Through secondary analysis of national data bases, the author provides a picture of the flow of students through the educational system, of the points at which talent loss occurs through student attrition, and of the distribution of students by major field at various postsecondary levels. He also examines trends over time to assess the extent and direction of change in educational representation. The hierarchical structure of the higher education system and its implications for minority students' access to financial and educational resources are discussed, with particular attention given to the use of standardized tests for screening and selection rather than as diagnostic instruments for assessing student needs and measuring student development.

The report is based on analysis of longitudinal data, collected from over 10,000 individuals who entered college in fall 1971 and who were resurveyed in winter 1980, to determine what factors influenced their educational attainments. These analyses examined the influences of personal characteristics, high school experiences, beliefs and attitudes, educational and career goals, sources of and concern about college financing, and college characteristics.

A historical overview and description of government policy and program support for minority participation in higher education is followed by an analysis of the impact of these efforts on minority educational representation and achievement.

16:1.1/78-1

Increasing Student Development Options in College, New Directions for Education and Work, No. 4, David E. Drew, ed., 106 pp. (Jossey-Bass, San Francisco).

Articles in this volume examine the impacts of college on the development of values, identity, and plans for work and family roles of young adults. Three chapters focus specifically on the unique needs of women students and on the ways in which college appears to affect their aspirations, self-esteem, career plans, and occupational choices. Special attention is given to the institutional implications of these research findings, personal observations, and theoretical conceptualizations to enable educational policymakers to use the information and suggestions presented by these scholars and researchers in reshaping the college experience to make it more meaningful, humane, and constructive. Suggestions for further reading in the area of student development are presented.

16:1.1/78-2

"Patterns of College Experience: An Empirical Typology of Students and College Interaction," Carol E. Christian, 131 pp. (Unpublished Ph.D. dissertation, University of California, Los Angeles).

This study investigated different patterns of college experience and the educational outcomes associated with specific interactions between student types and their college environments." The study was also intended to develop an empirical typology of entering freshmen that could be used to study college impact and to test the applicability of "reference group" theory to the undergraduate campus social environment. The typology of freshmen, developed by analysis of 100 student characteristic variables for 51,700 entering college freshmen, identified 12 freshmen "types". Longitudinal college impact analysis was conducted for five of these types: business leader, socialite, scholar, hedonist, and religious. Almost 5,000 students for whom 1966 freshmen and 1970 follow up data were available could be categorized in at least one of the five types. Multistage stepwise regression analysis was used to test the study's hypotheses.

The author obtained only partial support for her hypotheses that: (1) reference group impact would be increased for students who experienced "success" as defined by the reference group. After examining the negative results, the author concluded that the student type measures are appropriate and the theoretical constructions are valid; the problem apparently resulted from insufficiently specific and possibly inappropriate reference group measures. Both theory and student typology are seen as useful tools for those concerned with studying and maximizing college impact on students.

See: 24:1.1/77-1 **Four Critical Years: Effects of College on Beliefs, Attitudes, and Knowledge,** Alexander W. Astin.

This analysis of the impact of college on students is based on the first 10 years of an ongoing national research project. Longitudinal data from 200,000 students and 300 institutions, representing all types of colleges and universities, have been weighted to approximate the results that would have been obtained if all first-time, full-time freshmen entering the nation's institutions of higher education had participated in the freshmen and follow-up surveys. Multiple regression was used to examine the effects of the college experience on more than 80 different outcome measures of attitudes, values, aspirations, behavior patterns, persistence, achievement, competency, career development, and satisfaction. The impact of college characteristics (e.g., size, control, selectivity) and collegiate experiences on student outcome measures was assessed and, by comparing students in terms of the degree and intensity of their exposure to college, purely maturational changes were separated from those changes attributable to college experiences.

The study's findings are specifically related to current trends in higher education, such as the expansion of the public sector, the increase in institutional size, the proliferation of community colleges, open admissions, the deemphasis on the residential experience, and the decreasing number of single-sex institutions. This analysis leads the author to suggest that many of these recent changes are detrimental to student development. For example, the data indicate that commuter students who live at home are more likely to drop out of college and to express less satisfaction with their undergraduate experience than students who live on campus, that students who enroll at 2-year colleges substantially reduce their chances of earning a bachelor's degree, and that single-sex colleges appear to have uniformly positive effects on their students. The author discusses the implications of these findings for change in educational policy and practice in the final chapter and offers practical suggestions about how institutions can better serve their students.

16:1.1/75-1

The Power of Protest: A National Study of Student and Faculty Disruptions with Implications for the Future, Alexander W. Astin, Helen S. Astin, Alan E. Bayer, and Ann S. Bisconti, 208 pp. (Jossey-Bass, San Francisco).

This book was written after the campus unrest of the late 1960's and very early 1970's in the United States had subsided, but it is based on empirical data collected as part of a comprehensive and controversial 3-year study conducted in the midst of the period of unrest. The authors are thus able to relate their findings to present students and campus environments and to consider implications for possible future unrest.

The analysis focuses on three issues: (1) the relationship between campus unrest and subsequent changes in institutional policy and/or programs; (2) the characteristics of students, faculty, and institutions associated with the occurrence of campus protest; and (3) the impact of protest on the attitudes and behavior of both participating and nonparticipating students. The primary research methods employed in the study were multivariate analysis of longitudinal survey data and intensive case studies of 22 institutions; three case studies are presented in detail. The problems of studying a volatile social phenomenon during its occurrence are also discussed.

The authors conclude that campus unrest is likely to persist as a symptom of a number of unresolved issues. The book seems most appropriate for planners and policy makers who wish to understand the links between past unrest and today's campus, the ways in which protest can retard or accentuate general college effects on student behavior and attitudes, and why an institution may be vulnerable to protest and how it might best respond.

16:1.1./75-2

Education, Occupation, and Earnings: Achievement in the Early Career, William H. Sewell and Robert M. Hauser, 237 pp. (Academic Press, New York).

This book attempts to chart the complex process by which a young man's social origins influence his capacities and achievement in educational, occupational, and economic spheres. Focusing on earnings as the end product of the achievement process, the authors seek to determine whether and how factors other than performance in an occupational role influence earnings and help explain the wide variation in earnings among members of a particular group.

Data were collected through survey questionnaires from a large probability sample of Wisconsin high school seniors in 1957 and from a random subsample of this group in 1964. Social Security earnings information for the period 1957-1967 were obtained for males and their parents. The analysis is based largely on an achievement model that links socioeconomic status and academic ability with educational achievements and occupational attainments by means of social psychological variables.

The authors examine a number of critical relationships: the influence of socioeconomic origins on achievement, the role of social psychological factors mediating between socioeconomic origins and achievement, the effects of the type of college on occupation and earnings, and the circumstances under which ability actually affects earnings. These analyses, which explore the cause and consequences of higher education, highlight the factorial complexity of the achievement process.

Although the study utilizes male subjects from a single state who were high school seniors in 1957, the authors believe that the basic process of socioeconomic achievement found for this sample probably can be generalized to apply to the nation as a whole.

See: 24:3.2/7.4 **Commuting Versus Resident Students,** Arthur W. Chickering.

Interest in the impact of college on student learning and development, the problem of funding, construction, and maintaining college residences, and the role of the residential experience led Arthur Chickering to examine differences between commuting and resident students in entering characteristics, college experiences, and educational outcomes. The author provides a context for the research findings by a discussion of prior research and of institutional responses to changes in society and the student population. Primary and secondary analyses of national data on entering freshmen and 1- and 4-year followup studies of this population collected by the American Council on Education constitute the book's research base.

The author found that there are significant benefits accrued by students who go away from home to college and that able and affluent students are more likely to go away to college than are less able and affluent students, only widening the initial gap between the two groups. He concludes that the concept of equal access to higher education needs to be expanded to include access to residential facilities during undergraduate edcuation.

The author identifies three major groups of new students: those from lower socioeconomic levels with poor academic records, students from the inner city, and adults pursuing some kind of further education. The new students are more likely to be commuters than residential students. The resident students tend to become more fully involved with the academic program and the associated intellectual and social activities of an institutional environment than do commuting students, thereby developing relationships that reinforce educational and emotional growth.

The author relates his findings to basic educational and developmental principles and makes recommendations designed to strengthen the educational experiences of all students, but primarily commuters. These recommendations relate to: a sound match between the educational needs and purposes of students, learning resources, and educational influences; better information about higher education systems and individual institutions; more careful instructional planning related to the abilities and needs of students; and a wide range of available learning resources. These recommendations do not require large capital expenditures and could be implemented by existing institutions as well as by those developing new approaches to higher education.

16:1.1/71

Predicting Academic Performance in College, Alexander W. Astin, 299 pp. (Free Press, New York).

This book approaches the subject of academic achievement and attrition during the first year of college from a very practical perspective. It examines how a student's academic performance in college and chances of dropping out can be predicted from his or her academic and personal characteristics as a high school senior, and how characteristics of the college itself affect the students' academic success and survival. A series of tables provide information that would enable a student to predict his or her expected freshman grade point average, chances (in 100) of obtaining a "B" or better average, and chances (in 100) of dropping out of school before the second year of college at each of 2,300 different colleges.

Information provided by students who completed survey questionnaires as freshmen in 1961, 1965, and 1966, and follow up obtained 1 year later, provided the basis for three major types of analyses: (1) prediction of freshman grade point average and dropping out from various student characteristics; (2) the search for "moderator" variables to improve prediction within individual colleges; and (3) the development of separate prediction formulas for colleges at different levels of selectivity. Technical details on the sample, analyses, and construction and interpretation of the tables are provided in appendixes.

16:1.1/69

The Educational and Vocational Development of College Students, Alexander W. Astin and Robert J. Panos, 211 pp. (American Council on Education, Washington, D.C.).

This volume reports on a study undertaken to assess the significance of institutional diversity in the production of skilled labor by comparing the effects of different college environments on undergraduates' educational aspirations and career plans. More specifically, the study sought to identify institutional characteristics and educational practices that affect students' chances of completing college, attending graduate school, and pursuing a career in a particular field.

A sample of 60,505 students attending a stratified national sample of 246 4-year colleges and universities was selected for examination; approximately 36,000 students responded to a followup survey. Student input data (fall 1961 information from entering freshmen), student output data (summer 1965 followup data), and college environmental data were used to assess environmental effects on student development.

The book presents normative descriptive data on the class of 1965; an analysis of the personal and environmental factors that influence students' persistence in college, undergraduate major field, educational achievement, and educational aspirations and career choice during the undergraduate years; and a summary of the findings by institutional type or environmental characteristic.

The author reports that most undergraduates were reasonably satisified with their colleges and that, 4 years after matriculation, nearly two-thirds of the class of 1965 had completed 4 years of college and about half had earned bachelor's degrees. The best predictors of students' final career choices were the choices they expressed as entering freshmen. A substantial portion of the observed differences among the 246 institutions, with respect to the educational and vocational development of their students, could be attributed to differences in the students they enrolled. Interestingly, as students progressed through the undergraduate years, their fields of study and career choices came to conform more and more to the dominant or modal choices of their college peers.

16:1.1/68

"Undergraduate Achievement and Institutional 'Excellence'," Alexander W. Astin, *Science*, Vol. 161, pp. 661-668.

This article discusses a study designed to test the effects of certain traditional indexes of institutional excellence on the cognitive development of undergraduates. Two hypotheses were tested. First, that the academic excellence of the undergraduate institution—as defined by the ability of the student body, the degree of academic competitiveness in the college environment, and the level of the institution's financial resources—has a positive effect on the undergraduate student's intellectual achievement; second, that the extent of the positive effect on intellectual achievement is proportional to the student's academic ability.

The research sample consisted of 669 students at 38 four-year colleges for whom longitudinal data were available. The study utilized 103 student input measures and 69 institutional environment measures, including 8 measures of institutional quality; student scores on the Graduate Record Examination area tests in their senior year (1965), were the output measures.

Analysis of the data failed to confirm either hypothesis. Additional analysis indicated that differences in student achievement during the senior year were much more dependent on variations in student input and field of study (major) than on the characteristics of the undergraduate college attended. These results suggest that institutions seeking to enhance student cognitive development should focus their efforts on the curriculum rather than on upgrading such traditional indexes of institutional quality as the number of books in the library or the proportion of faculty holding a Ph.D.

1.2 Impact of Individual Institutions

16:1.2/80-1

"Measuring the Quality of Student Effort," C. Robert Pace, *Current Issues in Higher Education*, Vol. 2, pp. 10-16.

The principal assumption of this paper and of the research effort it describes is that what a student gets out of college depends, at least to some extent, on the time and effort he or she invests in the college experience. To test this assumption, a "College Student Experiences" questionnaire was administered to a cross-section of 4,351 undergraduates at 13 institutions: three research universities, three campuses of the California State universities and colleges, two community colleges, and five liberal arts colleges. The questionnaire included a background information section, 14 quality-of-effort scales, 12 scales related to the college environment and students' relationships within that environment, and an "estimate of gains" section that asked students to gauge their progress in college in terms of 18 statements of fairly typical and important objectives of a college education. These 18 goal statements can be classified into four major categories of educational outcomes: academic and intellectual; general education; personal and interpersonal understanding; and understanding of science.

The research findings indicate that quality of effort in academic and intellectual experiences increases from the freshman to the senior year and appears to be related to obtaining higher grades and to spending more time on academic work. Measuring quality of academic effort has diagnostic value: students who spend more time at a low level of quality make less progress toward relevant educational objectives than do students who spend less time at a higher quality of effort. Furthermore, quality-of-effort scores contribute substantially to the prediction of educational outcomes. Quality of student effort, a dimension ignored in past research, appears to be the most influential single variable in accounting for students' attainment. The author concludes: "What counts most is not who you are or where you are but what you do."

16:1.2/80-2

Men and Women Learning Together: A Study of College Students in the Late 70's, Brown University Project, 295 pp. (Brown University, Providence, R.I.).

This report presents the findings of a study that began with a focus on the situation of women in coeducational institutions and evolved into an effort to understand possible differences in the college experiences of men and women and their implications for providing educational opportunities sensitive to the needs of all students.

Section I of the report includes five chapters on various aspects of the undergraduate experience, based on a cross-sectional study of over 3,000 undergraduates at six institutions: Barnard College, Brown University, Dartmouth College, Princeton University, the State University of New York at Stony Brook, and Wellesley College. A randomly selected sample of the 1978-81 classes completed a 20-page questionnaire focusing on academic performance, student-faculty relations, values, attitudes, and social relations; career goals and planning, and demographic characteristics.

Section II presents two analyses—one of student characteristics and one of alumni attitudes—before and after the 1971 merger of the previously single-sex Brown University and Pembroke College. A longitudinal profile of men and women students examines trends in statistics on entering freshmen (SAT scores, high school rank, number of applicants, and number of accepted applicants who matriculate) and trends among enrolled students (persistence rates by field, career interests, extracurricular leadership, and receipt of academic honors) from the early sixties to the mid-seventies. Three alumni groups, the classes of 1961, 1967, and 1974, were surveyed to ascertain their views of their institutions and of themselves currently and during their college years.

Section III includes three papers presented at a project conference, "Women/Men/College: The Educational Implication of Sex Roles in Transition." Section IV contains the final report of the Committee on the Status of Women at Brown.

This report is of particular relevance to institutions interested in conducting similar studies. It demonstrates how useful research results can be produced by examining existing data and by analyzing survey data using basic statistical techniques.

16:1.2/73

"Personality Development and the College Experience," Arthur W. Chickering and John McCormick, *Research in Higher Education*, Vol. 1, pp. 43-70.

This article reports on a study to examine the personality development of undergraduate students at 13 small colleges. Data were collected from 168 students in their freshman and senior years. The primary research instrument was the Omnibus Personality Inventory (OPI). Patterns of change for the total population and for subgroups of students were studied.

Despite major differences among institutions and students, the direction of net change, as indicated by mean OPI score changes, was basically the same in several diverse colleges. Senior scale scores indicated increases in autonomy, awareness, integration, aesthetic sensitivity, tolerance, and liberalness in religious views, and less concern with material possessions. However, students did not become more similar; diversity increased for the total group and, frequently, within each college.

Change patterns of subgroups of students enrolled at different colleges with similar freshman OPI scores also were examined. Different patterns of change were found that were sytematically related to such factors as college climate, student characteristics, teaching practices and study activities, and student-faculty relationships.

On the basis of these results, the authors conclude that institutional differences do make a difference to student development: differential change occurs as a function of the fit between student and institution. A close "fit" leads to consistent change among diverse colleges, while a "misfit" causes changes to occur that are strongly associated with varied college characteristics and educational practices.

16:1.2/72

Students and Colleges: Interaction and Change, Burton R. Clark, Paul Heist, T. R. McConnell, Martin A. Trow, and George Yonge, 327 pp. (Center for Research and Development in Higher Education, University of California, Berkeley).

This book reports the findings of an intensive longitudinal study of differential change in student characteristics at eight colleges. Conducted in the late 1950's and early 1960's, the study was designed to answer a number of questions: (1) Do students' personality characteristics, educational and vocational values and aspirations, and religious, political and civic attitudes change during college, and in what directions? (2) Do students in dissimilar institutions show differential change in these characteristics? and (3) If these changes can, to some extent, be attributed to college influence, what kinds of effects occurred and in what ways might the institution be exerting an effect on students? Student input characteristics and college environment characteristics were assessed and considered in regard to the outcome measures.

The authors find support for the three major forms of college impact identified by Feldman and Newcomb (24:1.1/69-2): anchoring (maintenance or strengthening of initial attitudes); accentuation (an increase or heightening of certain initial student characteristics); and conversion (transformation of a student's initial values, dispositions, and attitudes). The authors discuss the conditions that influence the type and extent of impact that a college or university has on its students.

See: 24:1.1/69-1 **Education and Identity,** Arthur W. Chickering.

The fundamental assumption of this book is that "colleges and universities will be educationally effective only if they reach students 'where they live,' only if they connect significantly with those concerns of central importance to their students." A conceptual framework, which was designed to move research findings closer to application and action, was developed from earlier research and from data from the Project on Student Development, a 5-year study begun in 1965 that examined institutional characteristics, student characteristics, attrition, and student development in 13 small colleges.

Chickering describes seven "vectors" of development: developing competence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, clarifying purposes, and developing integrity. The author contends that colleges can accelerate or retard individual development along each phase and identifies six major environmental influences on student development: (1) clarity of the institutions' objectives and the internal consistency between program and objectives; (2) institutional size; (3) curriculum, teaching, and evaluation; (4) residence hall arrangements; (5) faculty and administration; and (6) friends, groups, and student culture. Hypotheses as to how each of these influences can affect student development are posed and discussed.

The author believes that, by systematically modifying environmental conditions, institutions can enhance student development. Specific suggestions for action, which are based on existing knowledge, should be of particular interest to educational planners and policymakers.

See: 24:3.1/68-2 **No Time for Youth: Growth and Constraints in College Students,** Joseph Katz and Associates.

This volume, which is based on intensive study of Berkeley and Stanford 1961 freshmen over a 4-year period, focuses on the role of colleges in furthering individual development. Data collected from several thousand freshmen and from over half of these students as seniors is supplemented by case studies of a randomly selected group of 200 students interviewed at least twice a year throughout the course of the study. Although the study examines students at only two institutions, the authors contend that it focuses on what is universal in the development of college students.

The text has four major divisions. Part I describes how students change during the college years. Part II identifies groups of students in terms of their attitudes toward the curriculum and examines the process of career choice, as well as the interaction between curriculum and career decisions. Part III focuses on student life outside the classroom and studies specific personality types and kinds of behavior. Part IV presents recommendations for a new type of undergraduate education that the authors believe would better develop student potential.

The authors contend that all educational planning must start from a recognition of student diversity in ability, interests, purposes, learning styles, backgrounds, and personalities. Recommendations for changing the structure, focus, and timing of education, the college environment, the composition and role of the faculty, and the role of the student are all intended to shift the primary focus of undergraduate education from the course to the student.

1.3 General Developmental Studies

See: 12:1.1/81-2 **On Higher Education,** David Riesman.

David Riesman considers the effects of education on and its benefits to individuals and society from a perspective that is very different from those of other authors whose work is cited here. He does not seek to document the impact of college nor does he deny that the college experience affects individuals. But he asserts that the hopes and faith that have been placed on the capacity of education to produce changes in individuals and society have often exceeded the realization of these desires. Riesman examines the causes of this discrepancy, with particular attention to the growth and consequences of student consumerism, in the hope that an improved understanding of the situation will inform and guide rational response. Three major questions are addressed: What is happening in higher education as students become customers instead of supplicants for admission? What are the likely consequences for teaching and learning of the marketing of higher education and of the fear of losing full-time enrollments by imposing rigorous academic requirements? How can or might negative trends be counteracted and education improved?

The author draws on research and presents specific examples to document and illustrate his discussion. Throughout the book, he gives attention to "the deviant case" (for example, the minority of community college students who, stimulated and encouraged by their experience, transfer and earn a bachelor's degree) to underscore the dangers of overgeneralization. The transition from faculty to student hegemony is traced, its causes are discussed, and the current situation of institutions competing for students is described. One chapter focuses on the Protestant evangelical colleges, where students still subordinate themselves to the authority of the institution and its faculty. In contrast, the following chapter explores student power in community colleges, where minimal student commitment is required. The implications of student consumerism for institutional diversity (a decline) and factors that prevent students from making full use of their market power are discussed.

The author offers a number of suggestions about steps that could be taken to improve education: ways of providing better information to guide student choice, ways of countering student passivity, ways in which accrediting agencies can play an important role in improving student information and education, and ways in which government can protect student consumers from educational fraud and deception without deleterious regulation of institutions. The distinction between student "wants" and student "needs" is underscored, as are the dangers to students of viewing themselves as passive consumers of education rather than as active producers of their education and as resources for educating each other and faculty. The author contends that students can do more to improve their education than any amount of imposed curriculum reform, and presents examples to illustrate his position.

16:1.3/79

Measuring Outcomes of College, C. Robert Pace, 188 pp. (Jossey-Bass, San Francisco).

What do some 50 years or so of educational testing and surveys tell us about student achievement during college, about college graduates' achievement after college, and about colleges and universities as organizations and environments? In this volume, C. Robert Pace reports that the primary descriptive evidence is strong and consistent: It shows that students change during the college years and that the status of college graduates differs from that of nongraduates in many respects. Pace summarizes the results of large-scale tests and surveys that document the beneficial effects of college on student knowledge and alumni job satisfaction, of civic and cultural involvement, and the belief of graduates that college contributed to their breadth of knowledge, interpersonal skills, values, and critical thinking.

Pace points out that our understanding of learning during the college years can be strengthened by making better use of available measures of college achievement and by expanding the range and variety of measures that we use to assess learning. Our understanding of the long-term effects of college on alumni achievement could be improved by constructing and utilizing standardized alumni questionnaires. He suggests that, if we are to learn more about the connections between institutional goals, characteristics, environments, and outcomes, we will need to conduct large-scale comparative studies that draw upon data from a range of sources, including outcome or achievement measures that match the diversity of institutional purposes.

See: 24:1.1/77-2 **Investment in Learning: The Individual and Social Value of American Higher Education,** Howard R. Bowen.

The author, an economist who specializes in the economics of higher education, addresses the question: Is American higher education worth what it costs? The primary objective of this volume is to identify and evaluate the overall outcomes of higher education, to determine within the limitations of existing data whether these outcomes as a whole are worth the cost, and to point out the broad implications of the findings for higher education policy.

An extensive review of the literature led the author to develop a catalog of widely accepted goals of higher education. This catalog, which includes both individual and societal goals, provides a taxonomy for studying the outcomes of higher education. Drawing on existing research literature, the author attempts, in Part I of the book, to determine whether and to what extent each goal is achieved. Part II examines the impacts of higher education on its students as individuals. Evidence of growth and development along each of 23 dimensions, including cognitive, affective, and practical competencies, is considered, the impact of higher education on students viewed as "whole persons" is explored, and the range of differences among institutions in their impact on students is assessed. Part III examines the direct and indirect effects of higher education on society.

Although the evidence is scattered and not always consistent, considered as a whole it strongly suggests that higher education has significant positive effects on both individuals and society. In Part IV, the author concludes that the total returns from higher education in all its aspects exceed the cost by several times. He also offers suggestions concerning the future of American higher education.

16:1.3/74-1

Varieties of Accomplishment After College: Perspectives on the Meaning of Academic Talent, Leo A. Munday and Jeanne C. Davis, 21 pp. (Research and Development Division, American College Testing Program, Iowa City, Ia.).

This ACT research report (No. 62) discusses a study focused on the relationship of high school nonacademic accomplishments to comparable nonacademic adult accomplishments. Young adults who had completed the American College Testing Assessment in 1964-65 as high school seniors and who had attended one of three selected universities were sent an alumni survey 6 years later. The research questionnaires contained six eight-item scales that corresponded to the areas of nonacademic accomplishment tapped in the original assessment. The scales reflected cultural and citizenship goals that a college presumably would espouse for its students. Just over 2,000 of the approximately 5,000 deliverable questionnaires were returned. Response rates by institution were 19 percent, 42 percent, and 56 percent. Responses were collated with earlier ACT data on a student-by-student basis and correlations between high school indexes of talent (test scores, grades, and nonacademic accomplishments) and adult accomplishments were obtained separately by sex, institution, and graduate status. The scales, although unrelated to academic talent (including college grades), were related to comparable high school accomplishments.

Despite its sample size and response rate limitations, the study indicates the pitfalls of placing too much reliance on traditional indicators of academic talent. The authors urge educators to conceptualize ability and talent more broadly in the admissions process and to provide students with opportunities to develop nonacademic talents during the college years.

16:1.3/74-2

The Many Faces of College Success and Their Nonintellective Correlates: The Published Literature Through the Decade of the Sixties, Oscar T. Lenning, Leo A. Munday, O. Bernard Johnson, Allen R. Vander Well, and Eldon J. Brue, 552 pp. (American College Testing Program, Iowa City, Ia.).

This volume, which deals with nonacademic criteria of college success, and its companion volume (16:1.3/74-3), which deals with academic criteria of success, are the products of a 5-year review of the published literature on various kinds of college outcomes. The authors classify studies of nonacademic criteria of college success published through 1970 into one or more of 21 criterion areas, which include: intellectual development;

personality development and adjustment; motivational and aspirational development; social development; aesthetic-cultural development; moral, philosophical, and religious development; and other types of college success. Publications assigned to more than one criterion are cited in each category to which they are assigned.

An introduction to each criterion area is followed by approximately 10 summaries of selected publications on research in that area and a comprehensive list of references to additional relevant literature. Studies were selected for annotation to point out noteworthy quality or interesting or unique research approaches, techniques, and/or findings. No annotations were included in the final chapter, which covers areas of college success where comparatively little research was found: post-college success, the development of student power, the development in students of basic academic skills lacking upon college entry, and direct benefits to society.

16:1.3/74-3

Nonintellective Correlates of Grades, Persistence, and Academic Learning in College: The Published Literature Through the Decade of the Sixties, Oscar T. Lenning, Leo A. Munday, O. Bernard Johnson, Allen R. Vander Well, and Eldon J. Brue, 272 pp. (American College testing Program, Iowa City, Ia.).

This monograph is intended to provide the reader with a broad overview of the research that has investigated academic criteria of undergraduate success and to stimulate thought about the meaning and measurement of academic success in college. The intellective criteria of academic success are grades, persistence, and academic learning. The nonintellective correlates or predictors of these outcomes are classified into 17 categories: personality and adjustment; stress and anxiety; motivation, aspirations, and need for achievement; attitudes, values, and needs; academic habits and study methods; interests; extracurricular activites; self-concepts; ratings of others; interpersonal relations; application blanks and biographical questionnaires; parental characteristics and family relations; socioeconomic level; high school and geographical factors; college environmental factors; counseling and special programs; and unique and miscellaneous predictors.

The authors provide a brief introduction to each category of predictor variables, followed by approximately 10 annotations of relevant research studies and a comprehensive list of references to additional studies published from 1963 to 1970. A research overview of the correlates of persistence, grades, and academic learning, and a list of literature reviews, include the only references to studies published prior to 1963. Annotations of 11 "multifocus" studies (exploring variables from more than one of the correlate-predictor categories) are presented in a separate section of the report.

See: 24:1.1/69-2 **The Impact of College on Students,** Volume I: **An Analysis of Four Decades of Research and Volume II: Summary Tables,** Kenneth A. Feldman and Theodore M. Newcomb. This two-volume work is a landmark in the literature on college impact. The authors critically reviewed almost 1,500 published and unpublished studies written between the mid-1920's and the mid-1960's. Their search was guided by the question: "Under what conditions have what kinds of students changed in what specific ways?" The empirical knowledge and theoretical propositions about the effects of college on students are integrated, summarized, presented, and evaluated in the text (Volume I) and in capsule tabular summaries of selected studies (Volume II).

On the basis of their review and analysis, the authors conclude: "There are conditions under which colleges have had (and, we assume, will continue to have) impacts upon their students, and not least upon students' values." The evidence that supports this conclusion is organized and presented in chapters that address key questions about the process of change during the undergraduate years and the influences that affect the type and extent of change. Methodological issues and problems of concern to those designing and interpreting research studies dealing with this complex topic are identified and discussed. Because data bearing on all 4 years of the undergraduate experience are considered, the authors can assess the nature, extent, and timing of college impact on students.

16:1.3/68

Beyond High School, James W. Trent and Leland Medsker, 333 pp. (Jossey-Bass, San Francisco).

This volume summarizes a study of 10,000 young adults in 16 communities during the 4 years following their graduation from high school in 1959. The study is especially significant because of the size of the sample, the longitudinal design, and the comparisons drawn between college attenders and nonattenders. Designed to investigate the personal and vocational development of high school graduates and to collect information about their patterns of college attendance and employment, the study examines the impacts of college and employment on values and attitudes.

The communities included in the study were roughly representative of the United States except for the Northeast (too many private institutions) and the Southeast (racially atypical). These areas were not included, according to the authors, because they "...would so affect research findings as to distort the overall piture of the relationship between the availability of the various types of colleges and the rate of college attendance."

Beyond High School is a landmark in both retention and demographic research. The social and psychological determinants of persistence and the process of student growth and maturation, as well as demographic information on admissions, transfer, and retention patterns, are examined. Although the findings suggest that college fosters or at least facilitates the growth of autonomy and intellectual disposition among attenders, the authors concede that this growth may be the result of a predisposition to develop in this way among those who choose to continue their education after high school. Nor can the authors determine the durability of changes brought about by higher education. Nonetheless, policymakers and planners concerned with the full utilization of human talent will find that this book provides valuable information about the factors that lead to educational attrition and the impact of college on individual development.

2.0 DESCRIPTIVE STUDIES

16:2.0/181

The Characteristics and Needs of Adults in Postsecondary Education, Lewis C. Solmon and Joanne J. Gordon, 155 pp. (Lexington Books, Lexington, Mass.).

Despite increasing emphasis on the marketing of higher education and on attracting new student populations, relatively little recent information is available about the growing numbers of adults pursuing a postsecondary education. This book presents trend data covering 13 years for one adult student population: first-year college students over the age of 21. A sample of 172,400 adult students was identified from among respondents to the Cooperative Institutional Research Program's annual national surveys of the entering freshman classes of 1966 to 1978. Although part-time adult students and those attending 2-year colleges may be underrepresented in the total sample, results reported separately by student status and institutional type are considered to be representative of both groups of adult students.

The authors assess similarities and differences between adult and traditional-age college students by comparing the responses of adult freshmen with the national normative profile of their respective freshman class. This analysis examines demographic characteristics, college choice and the factors influencing this decision, concern about and sources of financing a college education, academic background and preparation for college-level work, plans about living arrangements and major field of study during college, educational and career aspirations, and life goals. The authors summarize major findings and discuss policy implications suggested by the data analysis in the final chapter.

16:2.0/80

Effects of Postsecondary Experiences on Aspirations, Attitudes, and Self-Conceptions, David E. Kanouse and Associates, 141 pp. (Rand Corporation, Santa Monica, Calif.).

This volume reports on a study to examine the effects of various post-high school activities on short-range outcomes associated with the development of aspirations, attitudes, and self-concept. The analysis of changes over a 4-year period is based on data from the National Longitudinal Study of the High School Class of 1972 (16:3.0/S-6). Sample members were classified into post-high school "tracks," including three educational tracks, full- or part-time employment, military service, full-time homemaking, and unemployment, based on their status as of October 1972. The outcome variables on which changes associated with choosing various tracks were assessed included: self-esteem; orientations toward work, family, and community; sex-role attitudes; educational expectations; career aspirations; satisfaction with career progress; and locus of control.

The authors find that, after controlling for initial differences in ability, high school achievement, and family background, the initial differences between young people who choose various post-high school pursuits are generally much greater than the relative changes associated with choosing a particular "track." They conclude that, for the most part, divergence of aspirations, attitudes, and self-concepts occurs prior to high school graduation and that different experiences after high school do not have as much effect as do the factors that lead graduates to elect to participate in various experiences. Exceptions are noted and an analysis of changes in the outcome measures over time is presented.

16:2.0/79

Education's Lasting Influence on Values, Herbert H. Hyman and Charles R. Wright, 161 pp. (University of Chicago Press, Chicago).

A companion volume to *The Enduring Effects of Education (16:2.0/75)*, this study examines the lasting effects of education on values. While respondents to 38 national sample surveys conducted between 1949 and 1975 comprised a sample pool of about 44,000 adults. These surveys yielded 151 tests of values, each involving a question that implicated a value in an actual situation. Survey respondents were categorized by educational level (elementary school, high school, or college) and by life stage (ages 25-36, 37-48, 49-60, and 61-72).

The authors examined the effects of education by comparing the values of respondents representing each educational level separately at each life stage. For each age group (or life stage), the researchers examined a series of cohorts who were contrasted in the historical circumstances of their schooling but equated in age and in distance from their education. The design of the study controlled for possible effects of age and race on values; sex was controlled in all tests; and religion, ethnicity (U.S. versus foreign birthplace), social-class origins, and residential origins (size of community and region of birth) were controlled in all tests where the necessary information was available.

The values considered in this secondary analysis included: civil liberties for nonconformists; due process of the law; freedom from constraints of law in personal and social relations; freedom of information; protection of privacy; equality of opportunity in social, political and economic spheres; humane values; and cultivation of intellect, character, and prosocial behavior. The values profiles indicated that the three educational groups are different: the profile of values is most prevalent among college-attenders and least represented among those who have not gone beyond elementary school. Regardless of which age cohort or generation was examined, the most educated kept almost all their distinctive and attractive values up to age 60.

The authors conclude that education does produce large and lasting effects in the realm of values and is an important force in molding character.

16:2.0/78

Experiences of Recent High School Graduates, George J. Nolfi and Associates, 211 pp. (Lexington Books, Lexington, Mass.).

This book presents in edited form the combined final reports to the National Center for Education Statistics of two complementary studies examining the transition from high school to work or to postsecondary education. Both studies are based on data collected for the National Longitudinal Study (NLS) of the High School Class of 1972 (16:3.0/1S-6). The research objectives were to develop an understanding of the transition from school to work and to delineate factors in the demand for postsecondary education. Although the authors describe their work as basic research, their analyses were designed to address policy issues and to "provide an improved understanding of many major questions . . . that are important to the content of policy debates."

The first three sections of the book examine the characteristics of sample members choosing particular alternatives, factors influencing their decisions, and differences in choices and behaviors associated with race/ethnicity, socioeconomic status indicators, measures of ability, and other similar variables. The first section presents a general analysis of the post-high school experiences of the senior class of 1972, examining the extent to which these graduates were able to realize their plans and expectations in the years immediately after high school. The second section includes a labor market analysis focused on labor market entry and success among those members of the high school class of 1972 who intended to seek employment directly after graduation. The third section presents a new econometric model of student choice among postsecondary education alternatives and uses this model to forecast the effects of several hypothetical education policies on the postsecondary decisions of students in the NLS sample.

In a final section, the authors examine the effects of the Federal policy of providing institutional aid to public schools, but not to private, vocational schools. They test their hypothesis that a price-value tradeoff can develop in a two-price market, such as vocational education, using a vocational education choice model to examine the actual behavior of NLS sample members.

16:2.0/75

The Enduring Effects of Education, Herbert H. Hyman, Charles R. Wright, and John S. Reed, 313 pp. (University of Chicago Press, Chicago).

This volume reports on a study to examine the effects of varying amounts of education on adults' knowledge and receptivity to knowledge. The responses of large and representative samples of the adult noninstitutionalized population were studied through secondary analysis of some 250 discrete items of information requested in 54 national surveys conducted between 1949 and 1971. Surveys that clustered around four points in time and four age groups were selected for examination. This research design allowed the authors to examine the response patterns of four age cohorts who reached a common age at different historical times, to compare respondents with a given level of education across four age groups at the same point in time, and to track the same birth cohort at different life stages. All nonwhite respondents were excluded from the analyses. Separate analyses controlling for respondents' sex, religion, class origins, ethnicity, rural origins, and current socioeconomic status were conducted in order to determine the influence of these variables on the outcome measures.

Although the consistency and quality of items available for secondary analysis pose limitations, the creative approach to studying the long-range cognitive benefits of education used in this study presents interesting possibilities for future research. On the basis of their research findings, the authors conclude that "education produces large, pervasive, and enduring effects on knowledge and receptivity to knowledge."

16:2.0/74-1

Five and Ten Years After College Entry, Elaine H. El-Khawas and Ann S. Bisconti, 156 pp. (American Council on Education, Washington, D.C.).

This report presents a detailed descriptive account of the status of two cohorts, 1961 and 1966 college freshmen, at the time of a 1971 longitudinal study. The major objective of the study was to examine the educational and career development of these two cohorts following the undergraduate years. Particular attention was given to the academic progress and financial arrangements of those respondents who enrolled in graduate or professional education.

Subsamples of approximately 60,000 from each of the two freshmen cohorts were selected for follow up. Responses from about 25,000 members of each cohort were weighted to produce tabulations that approximate population distribution parameters. Frequency distributions and cross-tabulations by cohort, sex, race, bachelor's degree status (attained or not attained), plans for advanced study (yes or no), undergraduate and graduate fields of study, and advanced degree status are presented in 155 tables.

The authors present an overview of the findings on current educational status, achievement, and plans; patterns of activity over time; current employment and unemployment; and, for all respondents who went on to graduate or professional school, advanced study progress, patterns, and experiences, including financing sources and attitudes regarding indebtedness.

By examining these descriptive data using the normative profiles of the respondents as college freshmen, it is possible to identify changes in student attitudes, behaviors, and plans and to isolate some of the determinants of such changes.

16:2.0/74-2

The Demise of Diversity: A Comparative Profile of Eight Types of Institutions, C. Robert Pace, 131 pp. (McGraw-Hill Book co., New York).

This report examines some of the dimensions of diversity that characterize the system of higher education. The report is based on survey questionnaire data collected in 1969 from alumni of 1950 and then current college juniors at eight distinct types of institutions. The author explores patterns of association between college experience, personal background, type of institution attended, and various student and alumni activities, viewpoints, and characteristics. He draws comparisons between the kinds of college experiences and the benefits attributed to college by students and alumni at different types of institutions. The features that distinguish each type of institution for its 1950 alumni and its current students are discussed and related to various outcome measures.

The findings of this investigation lead its author to the following conclusion:

> As higher education has developed in this country, particularly over the last 20 years, the proportion of students who have a full and rich campus experience has gradually been reduced....The consequence of this trend is that fewer students attain benefits related to personal and social development, to liberal interests and attitudes, and to involvement in civic and cultural affairs.

16:2.0/73-1

The Graduates: A Report on the Characteristics and Plans of College Seniors, Leonard L. Baird, Mary Jo Clark, and Rodney T. Hartnett, 210 pp. (Educational Testing Service, Princeton, New Jersey).

This report uses data from a national survey of college seniors conducted in 1971 to study the development of career choices. Although the major research focus was postgraduate educational plans, extensive information and attitudinal data on students' backgrounds, self-concepts, undergraduate experiences, and career plans provides a comprehensive portrait of these seniors.

The sample of approximately 21,000 students drawn from 94 four-year colleges is, in the authors' estimation, reasonably representative of seniors who are oriented to graduate and professional education but perhaps somewhat less representative of those not planning advanced education. For much of the analysis, respondents were classified according to their plans for the upcoming fall: work, marriage, military service, or advanced study in one of six broad fields.

After reviewing the historical context in which these students grew up, the authors describe the seniors and examine their undergraduate experiences, particularly those likely to influence career choices, their perceptions of careers and graduate and professional schools, and their career decisions. Individual chapters compare the plans of men and women respondents and examine the responses of some 1,000 black participants. The last two chapters explore: (1) the correlates of grades, Graduate Record Examination, Law School Admission Test, and Medical College Admission Test Science scores in an attempt to learn to what extent these measures relate to students' social class, ethnicity, self-concepts, plans, and other characteristics; and (2) the correlates of career choice and offers of financial aid. Although the authors had expected to find that the 1971 senior was a new kind of student—more idealistic and socially effective than his or her predecessors—the evidence suggests no such clear-cut pattern of differences.

16:2.0/73-2

Four Years After College Entry, Alan E. Bayer, Jeannie T. Royer, and Richard M. Webb, 45 pp. (American Council on Education, Washington, D.C.).

This report provides extensive descriptive data on how young adults change after entering college. It is based on the 1971 responses of individuals initially surveyed as 1967 freshmen. The 34,3[illegible] followup responses were adjusted using a complex weighting procedure to represent the total number of first-time, full-time freshmen who entered higher education in 1967.

The authors present an overview of the findings on degree attainment, educational plans and aspirations, educational persistence, academic achievement, educational financial support, field of study, life objectives, and attitudes on social and campus issues. They include the 1971 survey responses in tabular form by sex (men, women, both sexes) and type of institution in which the student originally enrolled (2-year, 4-year, university, all institutions combined). These data, used in conjunction with the national normative data based on the 1967 freshmen responses, provide valuable insights into how young adults change after entering college.

16:2.0/70-1

Education and Employment: The Early Careers of College Graduates, Laure M. Sharp, 162 pp. (Johns Hopkins Press, Baltimore).

The experiences of an alumni cohort during the 5 years following their 1958 graduation provide the basis for this examination of the effects of education on work roles. One of the first studies to explore the linkages between education and work, it was designed to increase understanding of the dynamics of career outcomes, patterns of study and employment, familial influence on study and job decisions, the mobility of young college graduates, the impacts of different types of institutions, comparative career patterns of men and women, and the role of military service in the careers of college men.

Approximately 41,500 recipients of bachelor's, master's, and professional degrees in 1958 from some 1,200 4-year institutions responded to a 1960 survey. A stratified subsample of these respondents was surveyed again in 1963, and over 19,000 (83 percent) returned questionnaires. This book summarizes the findings and interpretations derived from these studies.

The author traces the early careers of the respondents by focusing on how the undergraduate major influences the transition to graduate study and employment, the role of military service in the careers of young men, and the role of the undergraduate institution vis-a-vis graduate study, occupational outcomes, and marital status. Tables in the text and appendixes present frequency distributions and the results of cross-tabulation analyses for a number of key variables; many of these findings are presented separately for men and women.

As a result of the women's movement and of changes in the labor market, the draft laws, and higher education in general, the environment in which today's college graduates study and begin their careers is very different from that of the graduates of 1958. However, the methodology used in this landmark study is applicable to more relevant samples.

16:2.0/70-2

Recent Alumni and Higher Education, Joe L. Spaeth and Andrew M.Greeley, 199 pp. (McGraw-Hill Book Co., New York).

This report, commissioned by the Carnegie Commission on Higher Education, provides insights into how well and how poorly colleges have served their alumni and how they may best serve them in the future. In 1968, the views, attitudes, and experiences of 6,005 1961 alumni who had returned four previous questionnaires were sought; 81 percent responded. The general strategy of analysis used in the study was to correlate indexes of satisfaction with college with attributes of the college (e.g., size, quality, control, and type), experiences of the alumni (e.g., years in graduate school, occupational choice, and present family income), and personal background variables. Path analysis was used to examine the transition from high school to college and the role of higher education in occupational attainment (but for men only).

The study found that the strongest predictor of alumni satisfaction seems to be the college's perceived contribution to value formation. In the final section, the authors consider the meaning and implications of this and other findings and discuss what policies and attitudes might be appropriate responses to the data. They conclude that, if they were to make one recommendation, it would be that education concern itself not with changing values but with the analysis and development of values.

3.0 DATA SOURCES

16:3.0/A-1

The American Freshman: National Norms for Fall 19—, Alexander W. Astin, Margo R. King, and Gerald T. Richardson, 158 pp. (Graduate School of Education, University of California, Los Angeles).

Annual normative reports on first-time full-time college freshmen have been published since 1966 based on the Cooperative Institutional Research Program's surveys of entering college students (see 16:3.0/S-1). Data from institutions that survey a representative sample of their freshman class are weighted to represent all first-time full-time freshmen. The normative report for fall 1980 is based on the weighted responses of almost 200,000 students entering 355 colleges and universities across the nation.

Questionnaire responses are presented in a series of tables that report data as follows: for all freshmen by institutional type (2-year, 4-year, university, predominantly black colleges) and control (public, private); for students entering universities by sex, control, and selectivity (an estimate of the average academic ability of an institution's entering class); for 4-year colleges by control (public, private-nonsectarian, Catholic, and other sectarian) and selectivity; and for four geographical regions (East, Midwest, South, and West) for all students and by sex. Appendixes include a list of all institutions that have participated in this research effort and the years of their participation, a copy of the questionnaire to which students responded, a discussion of the precision of the data, and a sample of the individual reports received by participating institutions.

These normative reports are a valuable reference source and research tool. They can be used to answer such questions as: What proportion of all college freshmen are age 23 or older? Does this differ by sex, type of institution, or region of the country? Has this changed over time? Based on trends over time, what projections can be made about the age distribution of college freshmen over the next several years? How do the national data or the data for similar institutions compare with information about the freshman class at a particular institution?

16:3.0/A-2

Summary Report 1980: Doctorate Recipients from United States Universities, Peter D. Syverson, 42 pp. (National Academy Press, Washington, D.C.).

Annual summaries of data collected from the Survey of Earned Doctorates (see 16:3.0/S-2) have been published for the past 14 years, beginning with academic year 1966-67. These reports provide statistical profiles of doctorate recipients and allow study of trends over time among this population. Selected variables are reported by sex, racial/ethnic group, citizenship status (U.S. or non-U.S.), and field or subfield of study. Each report highlights some issue(s) of topical interest. For example, the 1979 report examined trends in the postgraduate employment plans, by field, of Ph.D. and racial/ethnic groups and trends in the number of doctorate recipients planning postdoctoral study in foreign countries. The 1980 report focused on non-U.S. citizen doctorate recipients, examining their nationalities, fields of study, sources of support during graduate school, and postdoctoral employment and study plans. A copy of the survey instrument is included at the end of each report.

16:3.0/S-1

Cooperative Institutional Research Program, Graduate School of Education, University of California, Los Angeles.

The Cooperative Institutional Research Program (CIRP), initiated in 1966, collects data nationally each fall on the characteristics of students entering college as first-time freshmen. These freshman survey data are weighted to provide a normative picture of the college freshman population. The principal purpose of CIRP is to determine the effects of college on students. In addition to providing normative data on each fall's entering freshmen (see 16:3.0/A-1) that can be used to examine trends over time, the 200 items of initial input data on individual students can be used for longitudinal followup research.

The survey instrument, the Student Information Form (SIF), is designed to elicit a wide range of biographic and demographic data, as well as data on student's high school background and activities, career plans, educational aspirations, financial arrangements, and current attitudes. It contains both standard items that are administered annually and new items that permit a more thorough coverage of student characteristics and reflect the changing concerns of the data users.

From 1966 to 1970, approximately 15 percent of the higher education institutions were selected by stratified sampling procedures and were invited to participate. Since 1971, all institutions with an entering freshman class that respond to the Higher Education General Information Survey (HEGIS) have been invited to participate. In fall 1974 and 1975, samples of proprietary institutions also took part in the survey.

Institutions participating in the CIRP receive individual reports on their entering freshman class that can serve as a valuable resource to institutional planners and administrators. These reports provide separate tabulations of responses for men, women, and all students, as well as tabulations by sex for first-time full-time freshmen, transfer students, and part-time students. Institutions can request up to eight additional statistical descriptions of specified student subgroups: for example, students in different schools, departments, or special programs. Colleges and universities interested in conducting their own data analyses can purchase a computer tape record of individual student responses for their institution.

Tapes of freshman data for all surveys conducted since 1966 are available; each tape includes the individual responses of approximately 300,000 students. Longitudinal files are available for eight different cohorts of freshmen who were followed up from 1 to 10 years after entering college. The longitudinal files range in size from about 5,000 to 56,000 cases.

16:3.0/S-2

Doctorate Records File, Commission on Human Resources, National Research Council, National Academy of Sciences, Washington, D.C.

Virtually all recipients of earned doctorates since 1920, except for persons holding professional (clinical) degrees such as M.D., D.V.M., and J.D., are listed in the *Doctorate Records File* (DRF). Prior to 1958, individual data are scanty, covering only degrees held, dates awarded, and granting institutions. Since 1958, the annual Survey of Earned Doctorates in the United States has been used to collect data from all new doctoral degree-holders. Individual records contain: (1) sociodemographic characteristics, including date and place of birth, sex, citizenship, race-ethnicity (since 1973), parental education, marital status, and number of dependents; (2) educational information, including high school and graduation date, colleges attended and dates, fields of study and degrees, and sources of financial support during graduate study; and (3) information about postgraduate plans for employment and further education.

Annual summary reports of these data have been published since 1967 (see 16:3.0/A-2). A series of seven reports based primarily on the DRF data have been published by the National Academy of Sciences, most recently *A Century of Doctorates* (1978). Subject to the limitations of the Privacy Act, additional lists and tabulations, as well as computer tapes, can be purchased.

16:3.0/S-3

High School and Beyond, National Center for Education Statistics, U.S. Department of Education, Washington, D.C.

A recent addition to the *National Center for Education Statistics'* (NCES) longitudinal studies program, *High School and Beyond* (HS&B), is designed to follow the progress of two nationally representative samples of high school students during their transition to college, work, and family formation. Base-year data were collected in spring 1980 from over 30,000 sophomores and 28,000 seniors attending 1,015 public and private high schools. Several student populations, including Hispanics and private school students, were oversampled to permit indepth studies. The student questionnaire collected information on individual and family background, high school experiences, and plans for the future; it also included measures of self-esteem, locus-of-control, values, and attitudes. One section of the questionnaire that was designed for students who speak a second language was completed by over 11,000 respondents, a large proportion of whom are Hispanic.

Teachers at 415 public high schools completed a teacher comment form that elicited their perceptions of the 36 sophomores and 36 seniors at their schools who were included in the HS&B sample. A randomly selected sample of the parents of about 3,500 sophomores and 3,500 seniors were surveyed in fall 1980, with particular attention to their plans for their child's postsecondary education and the financing of further education. Additionally, institutional characteristics were collected from officials at 998 of the participating schools. These data include: school type, organization, and enrollment size; faculty composition, characteristics, and unionization; instructional programs, course offerings, and specialized programs; discipline problems; grading procedures; and funding sources and participation in Federal programs. Subsamples of both classes will be followed up at 2- to 3-year intervals; a sophomore class followup is planned for spring 1982.

HS&B student data files that include questionnaire responses and basic cognitive test scores for all students in the sample are available; each record has 638 variables. A preliminary school data tape with questionnaire responses from 988 high schools (237 variables per record) is also available. Parent, second-language, and teacher data files will be available for public use in fall 1981. After the first followup survey is completed, a student file including base-year and followup responses, parental responses, second-language information, and school characteristics will be developed. HS&B codebooks and users' manuals include frequencies for all variables in each file.

16:3.0/S-4

Higher Education General Information Survey, National Center for Education Statistics, U.S. Department of Education, Washington, D.C.

Each fall, the Higher Education General Information Survey (HEGIS) collects extensive data from all 2- and 4-year public and nonpublic institutions of higher education. Data on opening fall enrollments and earned degrees conferred, collected annually, are available on tape from fall 1969. Since 1972, the sample universe has included all institutions and their branch campuses.

Opening fall enrollment data are collected to provide a national count of the number of students in higher education, based on comprehensive coverage of institutions and categories of students. Full-time, part-time, and full-time-equivalent enrollment data are available, broken down by sex, for first-time, undergraduate, graduate, unclassified, and first-professional-degree students.

Data on earned degress conferred by higher education institutions are available on first professional degrees in selected fields; bachelor's, master's, and doctor's degrees conferred in selected disciplines; and degrees and awards based on less than 4 years of work beyond high school.

These data are available in published tabulations and on tape.

16:3.0/S-5

Higher Education Research Institute Studies of the Impact of Student Financial Aid Programs: Study A, (HERI, Los Angeles.).

These longitudinal data files, developed as part of a major national study of the impact of financial aid programs on students' decisions to attend college and their college choice, include longitudinal measures of student and college characteristics at three points in time: the beginning of the 11th grade, midway through the 12th grade, and at college entry.

Four major surveys were used to obtain data on student characteristics: the Preliminary Scholastic Aptitude Test (PSAT) administered in October

1973; the Scholastic Aptitude Test (SAT) and the American College Testing Program (ACT) for fall-winter 1974-75; and the Cooperative Institutional Research Program (CIRP) for fall 1975. In completing these surveys, students could indicate up to 12 possible college choices: two in the 11th grade, six in the 12th grade, and four as entering college freshmen. College choices at each point in time were described by data derived primarily from Higher Education General Information Survey (HEGIS), which were merged on each student's record. Measures of the local higher education environment (the type and number of colleges located near the student's home address) were also developed from HEGIS data and merged on each student's record, and each record also includes 20 measures of the financial aid characteristics of each student's home state.

Three longitudinal files are available: (1) an 11th-12th grade file that has an unweighted sample size of approximately 724,000; (2) a 12th grade-entering freshman file with an unweighted sample size of about 175,000; and (3) an 11th-grade-12th-grade-entering-freshman file with an unweighted sample size of approximately 115,000.

16:3.0/S-6

National Longitudinal Study of the High School Class of 1972 Study Reports Update: Review and Annotation, National Center for Education Statistics, U.S. Department of Education, Washington, D.C.

The ongoing National Longitudinal Study (NLS) focuses on the educational, vocational, and personal development of high school graduates and the personal, familial, social, institutional, and cultural factors that contribute directly or indirectly to that development. The general purpose of the NLS is to establish a factual basis for verifying and refining Federal policy concerned with maximizing individual access to educational and vocational opportunity, improving the general educational system, and assisting young people to assume a productive and satisfying adult role in American society. The project is also designed to extend scientific knowledge of human development during the period of transition from high school to adult careers.

Base-year data were collected in 1972 from a national probability sample of approximately 18,000 high school seniors at over 1,000 public, private, and church-affiliated high schools. Students in low-income or high minority group population areas, however, were oversampled. The base-year data include information on students' personal/family background; education and work experiences, postsecondary plans, aspirations, and attitudes; test results of verbal and nonverbal ability; and items from the students' high school records.

In followup surveys conducted in 1973, 1974, 1976, and 1979, the sample was augmented by almost 5,000 additional students from sample schools that were unable to participate in the base-year survey; response rates have been exceptionally high. The followup data include information on respondents' current status; education, work, and career plans; and aspirations and attitudes. A fifth followup is scheduled for 1985.

Base-year and followup data have been merged and are available on computer tapes. Published tabular summaries are also available for the individual surveys.

National Longitudinal Study of the High School Class of 1972, Mary Ellen Taylor, Cecille E. Stafford, and Carol Place, 104 pp. (Center for Educational Research and Evaluation, Research Triangle Park, N.C.).

The *Study Reports Update* provides a concise introduction to the National Longitudinal Study (NLS) by establishing an inventory of studies that have used the NLS data base and summarizing their major findings. The report includes an overview of the NLS project, a description of the data base, reviews and summaries of 309 study reports (32 of which are based on studies that were in progress as of early 1981), and publication references.

16:3.0/S-7
National Longitudinal Surveys of Labor Market Experience, Center for Human Resource Research, Worthington, Ohio.

National Longitudinal Surveys Handbook, 116 pp. (Center for Human Resource Research, Worthington, Ohio).

These longitudinal surveys, supported by the U.S. Department of Labor, provide extensive information on the educational, occupational, and personal characteristics and development of three samples of young adults: (1) 5,000 young men from whom personal interview and telephone survey data have been collected annually or biannually since 1966; (2) 5,000 young women whose lives have been similarly tracked since 1968; and (3) about 12,600 young men and women for whom baseline data were collected in 1979 and who were followed up in 1980 and 1981. The two samples from the late 1960's were selected to be representative of the nation's noninstitutionalized civilian population ages 14-24; blacks were oversampled, and account for about 30 percent of each survey cohort. The 1979 sample was selected to represent the nation's 14- to 21-year-old population; blacks, Hispanics, and economically disadvantaged whites were oversampled. The data base includes information on sample members' educational attainments and vocational training, family structure and family life, work history and plans, and health, financial, and marital status.

Personal interviews were conducted in 1981 with the all-male sample, marking the 15th year of this study. The women were interviewed by telephone in 1980, and research plans call for another telephone interview in 1982, followed by a personal interview in 1983. Current plans are to follow the 1979 sample over a 5-year period. Public use data files for the two earlier surveys include base-year and followup data.

Base-year data are available on tape for the 1979 sample; data from the first followup were available in early fall 1981; and data from the second followup should be available in summer 1982.

This *Handbook*, published in 1981, describes the history of the National Longitudinal Surveys studies, the content of the surveys, and sampling and estimating procedures. Data tape availability is explained, and a bibliography includes references to all National Longitudinal Surveys-based research conducted to date.

16:3.0/S-8

Project TALENT, American Institutes for Research, Palo Alto, Calif.

Publications Based on Project TALENT Data: An Annotated Bibliography, Emily A. Campbell, 209 pp. (American Institutes for Research, Palo Alto, Calif.).

In 1960, Project TALENT surveyed 9th through 12th grade students at a 5 percent stratified random sample of the nation's high schools. Base-year information was collected on students' abilities, socioeconomic status, high school curriculum, and educational and occupational interests and expectations. Each of the four grade cohorts of students was followed up 1, 5, and 11 years after high school graduation. Followup survey questionnaire responses provide data on the educational, occupational, and personal experiences of the sample members. To ensure the representativeness of followup respondents, a special sample of 10,000 students (2,500 per grade cohort) was selected for intensive followup effort; about an 80 percent response rate was obtained for this sample. Based on the special subsample responses, weights were developed to make the followup data representative of the initial sample. Current research plans call for the collection of data from targeted subsamples rather than further large-scale followup efforts.

Published tabulations of these data are available. Data on the 400,000 individuals in the master file can be obtained by requesting: (1) a special analysis that is conducted at the American Institutes of Research (AIR) (the data user receives a computer printout of the analysis results); (2) work tapes that are created at AIR to the data user's sample and variable specifications; and (3) public use files that include complete 1960 and 11-year followup data on a representative set of 1,000 cases from each grade cohort, and 1- and 5-year followup data, as available, for these respondents.

A Project TALENT Data Bank Handbook (AIR, 1977) provides information on the study, its design, sample, available variables, analysis considerations, and access to the data.

The *Annotated Bibliography* provides a general introduction to Project TALENT and describes the major publications that were available as of late 1978. All studies using the Project TALENT data bank, whether conducted by AIR staff or other researchers, are described. These study descriptions include information about the data used and the method(s) of analysis, a summary of the research findings, and references to publications based on the study.

17

Student Financial Assistance

Lawrence E. Gladieux*

Student aid takes the form of grants, loans, and work-study opportunities to help defray the tuition and nontuition (living) costs of students attending colleges and universities. Funds for such direct support of students now total over $15 billion annually from all sources, making student assistance a major factor in the overall financing of higher education. Government is by far the largest sponsor of aid to students: while privately financed scholarships have existed since the early history of American colleges, state and especially Federal student aid programs have ballooned in the past 15 years.

Aid to students rather than to institutions emerged as the principal instrument of Federal higher education policy in the early 1970's. The Pell Grant and other need-tested programs are designed to foster equal opportunity by removing financial barriers to and broadening access and choice in higher education. Eligibility for such

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*The chapter on student financial assistance in *Higher Education Planning: A Bibliographic Handbook* (1979) was edited by Lois D. Rice. The original entries have been updated and augmented.

support, most of which is directed to undergraduates from low- and moderate-income backgrounds, depends on the financial circumstances of students and their families.

In 1978, the Congress passed the Middle Income Student Assistance Act to channel more Federal aid to families higher on the income scale. The most far-reaching change was to remove any income or need test for the Guaranteed Student Loan Program (GSLP), under which loans made primarily by commercial banks are insured against default and generously subsidized by the Government. The subsequent explosion of loan volume and the rise of market interest rates combined to drive up Federal obligations for interest subsidies and other costs of the program, making it a prime target for budget cutting by the Reagan Administration. A host of proposals have been under consideration since 1981 for reining in Federal spending on loans, as well as for other Federal student aid programs.

In addition to general programs designed to help students meet college costs, the Federal Government provides entitlements for special categories of students, most notably veterans (through the GI Bill) and dependents (ages 18 to 21) of Social Security beneficiaries. Federal assistance has also been available, at least until recently, for students studying in particular fields, such as the health professions or law enforcement.

Though state governments continue to channel the bulk of their support for higher education into operating subsidies for public institutions, the states also have become increasingly committed to student aid. Nearly all states support need-based scholarships and operate direct or insured student loan programs. A few sponsor work-study plans that supplement Federal efforts in this area. Although there has been a general lack of coordination between Federal and state student aid policies, many states have adjusted the terms of their grant programs to recognize the Federal Pell Grant program as the foundation of student aid.

Despite the preeminence of government in providing student financial assistance, postsecondary institutions continue to play a critical role in the actual delivery of aid to students. Campus aid administrators exercise considerable discretion in establishing student expense budgets and "packaging" aid, combining grant and self-help (loan and work) funds from a variety of sources to meet individual needs.

Student financial assistance is a relatively new field of public policy development and professional administration. Much of the available literature consists of informally published studies, monographs, and journal entries. An extensive *Guide to the Literature of Student Financial Aid* (17:5.0/78) by Jerry S. Davis and William D. Van Dusen covers a great deal of fugitive material. A continuing source of technical research and commentary is the *Journal of Student Financial Aid* (17:5.0/S), published by the National Association of Student Financial Aid Administrators. Another source of studies and published material will be the National Commission on Student Financial Assistance after it completes its work and reports to Congress in late 1983.

The bibliographic entries presented here represent major published volumes, reports, and statistical references of relevance to state and national planning. The chapter is divided into six parts that cover various aspects of student financial assistance, as discussed below.

Governmental Policies. Most of the entries under this subtopic focus primarily on Federal involvement in student financial aid. Few works broadly address state student aid issues, although a number of individual state studies are available.

Student Loans. Borrowing for college looms so large as a factor in current patterns of student support that it warrants a special focus. Included here are significant works devoted primarily to the complex issues and mechanisms of credit financing for students. Entries under other subtopics also touch on student loan questions.

Governance, Administration, and Delivery of Student Aid. Successful implementation of public policy objectives in student aid depends on a delivery system that involves the Federal Government, states, institutions, and private service agencies. Entries under this subtopic address issues of equity, control, and standards in the management of such a system.

Special Types and Recipients of Aid. Included here are studies of veterans' educational assistance and Social Security student benefits, along with works on minority students, independent students, part-time students, adult students, and students from families receiving public assistance.

Statistical Studies and References. This subtopic covers key sources of statistical data about student aid and general bibliographic and other references.

Cross-National Comparisons. A final subtopic includes one entry—what appears to be the only systematic comparative study of student support policies in various countries, covering the United States and nine other members of the Organization for Economic Cooperation and Development.

TOPIC ORGANIZATION

17: Student Financial Assistance
  - **1.0** Governmental Policies
  - **2.0** Student Loans
  - **3.0** Governance, Administration, and Delivery of Student Aid
  - **4.0** Special Types and Recipients of Aid
  - **5.0** Statistical Studies and References
  - **6.0** Cross-National Comparisons

1.0 GOVERNMENTAL POLICIES

17:1.0/81

The Federal Government, the States, and Higher Education, Lawrence E. Gladieux and Janet S. Hansen, with Charles R. Byce, 21 pp. (College Entrance Examination Board, New York).

This paper was written as a primer for state legislators and others concerned with the problems of financing higher education in the 1980's. The report traces the development of Federal support for students and colleges, notes its fragmented character, and describes the patterns of support likely to continue in the 1980's. It gives special attention to student financial aid, the one area of support where state and Federal efforts overlap to a significant degree. In particular, it notes the strains that have developed as Federal aid has grown, describes the dilemmas that states face as they adjust to Federal expansion and the changes they have made in their own programs, and looks at budgetary constraints and fiscal federalism in higher education.

The paper is a clear and relatively brief overview for readers unfamiliar with the kinds and amounts of Federal aid flowing to states and students.

17:1.0/80

Federal Student Assistance: Issues and Options, Congressional Budget Office, 73 pp. (U.S. Government Printing Office, Washington, D.C.).

The Congressional Budget Office (CBO) prepared this issue paper for fiscal year 1981 as Congress was about to reauthorize the Higher Education

Act. The authors noted that a crucial issue in reauthorization was whether to maintain or alter the existing focus of Federal student assistance programs and, in particular, whether to reduce and retarget these programs. Though the apparent outcome of reauthorization was an expansion of student aid eligibility and funding levels, the election of Ronald Reagan only a month after the new legislation became law was the opening salvo in a budget war that promises to undo much of what was enacted in 1980.

This development makes CBO's issue paper all the more interesting, since CBO explicitly recognized (much earlier, apparently, than did the Congress) the underlying contradiction between continually expanding student aid and mounting pressures to reduce Federal spending. In particular, CBO noted that under the existing mix of programs (which the Education Amendments of 1980 left essentially unchanged), any future funding constraints "would have the perverse effect of reducing assistance for needy students while allowing assistance to students and families with little or no financial need to increase without check." This is precisely the conundrum that Congress found itself facing in 1981 as it attempted to shrink the Federal budget.

In its issue paper, CBO also noted that the Congress in 1980 had the option of maintaining existing programs, expanding and redesigning the Federal role in student assistance, or reducing this role. The report examines a variety of options for achieving these goals and describes the costs and distributional effects of the various choices.

17:1.0/79

Next Steps for the 1980s in Student Financial Aid: A Fourth Alternative, Carnegie Council on Policy Studies in Higher Education, 68 pp. (Carnegie Council, Berkeley, Calif.).

The Carnegie Council, successor to the Carnegie Commission on Higher Education, prepared this study to coincide with the re-examination of student aid that occurred as part of the process of reauthorizing the Higher Education Act in 1980. The Council predicted that the reauthorization debate would focus on three alternatives: a simple extension of existing legislation, continued expansion of eligibility for Federal assistance up the income scale, and tuition tax credits. It proposed instead a fourth alternative: "a major overhaul of the existing package of programs to make them more equitable in their impact and more sound in their administration—within the confines of about the same cost to the Federal and State Governments combined."

The Council believed that, overall, no new spending on student financial aid was needed. Rather, its members favored redirecting Federal funds to areas of greater need, improving coordination between Federal and state programs, and increasing the integrity, simplicity, and flexibility of the aid system.

The Council offered a number of interrelated proposals to accomplish its goals. The major new idea was to make self-help the basic building block of student financial aid, with all lower-division students expected to provide $600 and all upper-division students $1,000 before becoming eligible for Federal grants. The Council believed that this self-help requirement could take the place of the controversial "half-cost" limitation in the Basic Educational Opportunity Grants (BEOG'S) program, which it viewed as unfairly restricting aid to low-income students in public institutions. The Council proposed enlarging College Work-Study and vastly expanding Federal matching of state scholarships, while redirecting Supplemental Grants as part of a strategy of expanding the range of choice for students. It reiterated the Commission's earlier support for a National Student Loan Bank and for focusing BEOG's on the subsistence costs facing college students, with state grants directed to help pay tuition expenses.

This study is typical of Carnegie Council publications in its lucid summary of the accomplishments and weaknesses of student aid programs, in its view of the various programs as part of a comprehensive student aid system, and in its carefully reasoned proposals for change. Unfortunately, however, policymakers are not inclined to make major alterations in existing programs or to connect general goals and specific programs together as rationally and comprehensively as the Council has. In addition, some of the Council's recommendations, such as that calling for a vast expansion in state aid, simply flew in the face of political and fiscal reality. The Council's proposals, therefore, had little effect on the Education Amendments of 1980.

Jossey-Bass, Inc., in the same year published a longer version of this report under the same title, including extensive statistical tables.

17:1.0/78-1

Federal Aid to Postsecondary Students: Tax Allowances and Alternative Subsidies, Congressional Budget Office, 68 pp. (CBO, Washington, D.C.).

Reacting to concerns about a "middle-income squeeze" in the ability of families to pay for college, Congress in 1977 and 1978 seriously considered tuition tax credits for postsecondary expenses. As the debate heated up, Chairman William Ford of the House Subcommittee on Postsecondary Education asked the Congressional Budget Office (CBO) to prepare this background paper on tax allowances for education and alternative subsidies.

The study remains timely since the issue of tax allowances (tuition tax credits in particular) remains unresolved. In this report, the CBO considers five alternatives: tax credit or credit/deduction options, BEOG's, student loans, loans to parents, and tax deferrals. It uses five criteria in evaluating each alternative: cost and distributional efficiency in aiding middle-income families, fairness and equity, maintaining institutional diversity, ease of administration, and budget visibility and controllability.

The options evaluated by the CBO were specific to the debate underway in the 95th Congress, but the analysis is useful background for anyone interested in probing the issue of postsecondary tuition tax credits. The report also provides a useful summary of data up to 1978 on enrollment rates by income; the distribution of student aid by income; the relationships between college costs, family income, student aid, and the general price level; and the costs and distributional effects of various ways of subsidizing the costs of higher education for middle-income families.

17:1.0/78-2

Toward Equal Access, Humphrey Doermann, 143 pp. (College Entrance Examination Board, New York).

This small volume makes a plea to policymakers and educational leaders to continue the national effort toward equal educational opportunity. Written at a time when public and congressional attention was riveted on the "middle-income squeeze," the study forcefully focuses attention on the continued plight of the children of the poor.

Doermann documents his arguments with statistical analyses and estimates of the distribution of high school graduates by aptitude and family income from 1964 to 1984. Drawing on a survey of high school counselors, Doermann finds that there are still nearly 200,000 qualified young people who are not in postsecondary education because they lack money. The enrollment of these students, often unemployed or underemployed, would not only be good public policy in Doermann's view, but also would cushion some sectors of higher education against projected enrollment declines during the next decade.

17:1.0/77

Postsecondary Education: The Current Federal Role and Alternative Approaches, Congressional Budget Office, 59 pp. (U.S. Government Printing Office, Washington, D.C.).

Budget issue papers such as this, prepared by the Congressional Budget Office (CBO), typically describe options open to the Congress for a particular fiscal year, with the choice of subject matter and the range of options described depending on CBO's judgments about timeliness and plausibility. This budget issue paper, for example, is cast in terms of possible student aid appropriation actions for the Federal fiscal year that began on October 1, 1977.

But last year's CBO papers are not necessarily like last week's newspapers, for in introducing perishable budget options, CBO often provides a stage-setting discussion of continuing value for researchers. It is on that basis that this paper is of enduring interest.

The paper first establishes a conceptual framework for classifying Federal higher education goals, finding them to be: (1) providing equal educational opportunity, (2) easing the financial burden of college attendance, and (3) maintaining and improving education institutions. The paper then examines the current state of affairs and demonstrates that opportunity is not yet equal, suggests that net college charges faced by low- and moderate-income families have declined as a percent of family income in recent years and for middle-income families have been stable, and expresses courteous doubt that the financial plight of the higher education enterprise is worsening.

Finally, before moving to a discussion of fiscal 1978 options, the paper touches on the impact of Federal spending in achieving higher education goals. The paper describes patterns of Federal spending and of shifts in student enrollments among income classes and institutions, but ultimately states no conclusion as to whether any of the perceived changes are attributable to Federal financial interventions.

17:1.0/76

Congress and the Colleges: The National Politics of Higher Education, Lawrence E. Gladieux and Thomas R. Wolanin, 273 pp. (D.C. Heath and Co., Lexington, Mass.).

This is one of the few systematic studies of the formulation of Federal higher education policy, focusing on the development, passage, and outcomes of the Education Amendments of 1972. The authors, each active participants in the debates, interviewed 65 individuals in the Congress and the executive branch, on the campuses, and in the higher education associations to portray the issues and politics that led to the 1972 enactment. The case study is placed in an historical context and in the context of other domestic policy initiatives during the Nixon era. A major focus of the legislative struggle was whether Federal higher education policy should give greater emphasis to aid to students or to general aid to institutions. The decision in favor of student support set the pattern for at least a decade.

17:1.0/75

Federal Student Assistance: A Review of Title IV of the Higher Education Act, Consortium on Financing Higher Education, 82 pp. (University Press of New England, Hanover, N.H.).

This is an extensive, carefully documented report of 23 leading private institutions—members of the Consortium on Financing Higher Education

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(COFHE)—that agreed upon and presented to the Congress recommendations for change in the Federal student aid programs under Title IV of the Higher Education Act.

The report had little impact on Congress. Most recommendations for substantive change failed during the 1976 reauthorization of the Higher Education Act, when the Congress decided to continue testing the new programs it had authorized in 1972 and to make only minor changes in the older ones. Nonetheless, the COFHE report stands as a thoughtful, reasoned analysis and provocative set of recommendations for bringing greater coherence to Federal student aid policy.

17:1.0/70

Aspirations, Enrollments, and Resources, Joseph Froomkin, 151 pp. (U.S. Government Printing Office, Washington, D.C.).

While the author describes this publication as a monograph, it is actually a lengthy study designed to project, for the 1970's, the level of Federal expenditures required to meet the aspirations of Americans for higher education, to support the national goal of equal opportunity, and to maintain the quality and viability of colleges and universities. It is required reading for all students of higher education—not merely those concerned with student finance.

Joseph Froomkin, an economist, is a solid and meticulous analyst. Rereading this well-written and lucid study a decade after publication, one is struck by the accuracy of his projections of today's demand for higher education, enrollments, program costs, and manpower needs. Froomkin foresaw a creeping "middle-income-squeeze" in meeting increasing college costs. He suggests alternative subsidy mechanisms that, in retrospect, might well have tempered price increases and possibly the current "middle-class revolt" as well.

Froomkin documents the changing character of the higher education population—the rising aspirations of women, minorities, and the children of the poor and blue-collar workers. He clearly defines equal opportunity as the achievement of parity of low-income students with high-income students in their rates and timing of enrollment in higher education and in their patterns of attendance. Like the early Carnegie reports and the Rivlin Report, Froomkin concludes that expanded Federal student assistance is the most promising device to overcome unequal opportunities.

The volume has four parts. Part I uses a demand model and an equality model to project social demand for higher education. Part II describes the diversity of the postsecondary system, its costs, subsidies to students, curricular offerings, and admissions policies. Part III focuses on graduate education and the pros and cons for general institutional aid. Part IV estimates the financial needs of students and institutions and discusses alternative levels of Federal support for higher education.

17:1.0/69

Toward a Long-Range Plan for Federal Financial Support for Higher Education, U.S. Department of Health, Education, and Welfare, 73 pp. (U.S. Government Printing Office, Washington, D.C.).

Almost simultaneously with the release of the first Carnegie Commission report (see 17:1.0/68), but quite independently, an in-house government task force was compelting work on a report that advanced basically the same priorities and recommended many of the same mechanisms of Federal support as Carnegie. Alice Rivlin, an economist and Assistant Secretary of Health, Education, and Welfare, directed the study, which was issued just before the Johnson Administration left office in January 1969. The Rivlin Report, as it came to be known, converged with the Carnegie Commission on the central objective of equal educational opportunity and the pursuit of this objective primarily through student aid, calling for a program that would "dramatically and clearly indicate that the Federal Government has established a policy of removing financial barriers to college attendance."

The report is a lucid analysis and forecast of the Federal role in supporting higher education. Irrespective of its recommendations, it is a model of what government reports ought to be: a summary that summarizes, a list of clearly stated policy objectives, a fact-filled description of the current state of the subject (in this instance, higher education in the late 1960's), a discussion of major issues and alternatives, a set of priorities and recommendations, and a conclusion that connects recommendations to objectives and states their estimated costs over time.

Though by no means have all its recommendations been adopted—for example, the proposals for more financial support of graduate education—this report clearly had, and still has, a persuasive message for policymakers.

17:1.0/68

Quality and Equality: New Levels of Federal Responsibility for Higher Education, Carnegie Commission on Higher Education, 54 pp. (McGraw-Hill Book Co., New York).

This report, the first of the Carnegie Commission, announced a position and set of policy directions from which the Commission and its successor body, the Carnegie Council, never deviated. Each body emphasized that the nation's first priority is to fulfill the promise of equality of educational opportunity. As the title of the report implies, the Commission saw no tension between quality and equality. "Strong institutions," it said, "could act energetically and aggressively to open new channels to equality of opportunity."

The Commission recognized and sought to preserve the traditional roles of states and the private sector in financing higher education. It saw limits, however, to these resources. Thus, in this and subsequent reports, the Commission advocated an expanded role for the Federal Government in financing higher education.

In considering an enlarged Federal role, the Commission discussed proposals for tuition tax credits and dismissed them as regressive. It also rejected general support of institutions. Neither, in its view, would assure expansion of programs and priorities of primary national concern. Instead, the Commission proposed a student aid approach that combines basic opportunity grants for low- and moderate-income students, supplementary aid to match non-Federal student grants, work-study, loans, and special graduate student assistance. To expand the range of institutional options for needy students, the Commission urged creation of a National Student Loan Bank, or at least the establishment of a secondary loan market.

In 1970, the Commission issued a brief supplement to *Quality and Equality*, elaborating on and giving new force to its earlier proposals. Legislation enacted by the Congress 2 years later incorporated at least the essence if not the precise details of several Carnegie recommendations, including Basic Grants for needy students. This program was to become the engine of Federal student aid expansion during the 1970's. The 1972 legislation also authorized Federal incentives for the states to set up or expand their own scholarship programs, and it created a secondary market for loans by chartering the Student Loan Marketing Association (Sallie Mae).

See also 5:1.0/73-1 **Financing Postsecondary Education in the United States,** National Commission on the Financing of Postsecondary Education.

5:1.0/73-2 **Higher Education: Who Pays? Who Benefits? Who Should Pay?,** Carnegie Commission on Higher Education.

5:2.0/71 **Financing Higher Education: Alternatives for the Federal Government,** M.D. Orwig, ed.

5:4.3/78 **Public Policy and Private Higher Education,** David W. Breneman and Chester E. Finn, Jr., eds.

12:1.3/80 **A Program for Renewed Partnership: The Report of the Sloan Commission on Government and Higher Education,** Sloan Commission.

12:1.3/78-3 **Scholars, Dollars, and Bureaucrats,** Chester E. Finn, Jr.

2.0 STUDENT LOANS

17:2.0/81

The Guaranteed Student Loan Program: Options for Controlling Federal Costs While Preserving Needed Credit for College, Washington Office of the College Board, 25 pp. (College Entrance Examination Board, Washington, D.C.).

This paper was prepared as background for those grappling with what may be the central issue of Federal higher education policy in the early 1980's: how to control the escalating Federal expense of student loans without denying educational access to genuinely needy individuals or threatening the survival of many colleges. Although part of the analysis will soon be dated because of its focus on the early proposals of the Reagan Administration and alternatives being considered by the Congress in the budget debates of 1981, the report is a useful primer and constitutes the only substantial reference on student loan issues in the altered political and policymaking context resulting from the November 1980 elections. The report includes the history of legislative changes and the causes of the recent, explosive growth in GSLP, as well as an examination of policy options in terms of estimated Federal cost savings and potential effects on the supply of and demand for student loans.

17:2.0/77

Student Loans: Problems and Policy Alternatives, Lois D. Rice, ed., 169 pp. (College Entrance Examination Board, New York).

This volume contains the contributions of 20 people in addition to the editor: 7 essays by 9 authors, and commentaries on those essays by another 11. The participants vary widely in their perspectives and proposals for student loan programs, but they share the responsibility and the credit for a final product remarkable for its clarity, balance, thoroughness, and utility to policymakers and those who seek to comprehend the forces besetting policymakers.

The essays are, in order: a historical recounting of the beginnings of Federal student loan programs; an overview of student loan issues and policy alternatives; a discussion and a defense of the role of the states in such loans; an examination of a national student loan bank approach; an exploration of ways to make existing student loan programs simpler, more cost-effective, and rational; an inquiry into the problems of measuring and stating student loan defaults; and reflections on the special problems of graduate student loan financing.

What gives this volume a special flavor is the spice added by the commentators, who remind readers that the problems are more complex and the solutions not so straightforward as the several authors would have them believe. Reality accompanies the dream, as it were, instead of occupying its usual place behind.

As one of the commentators, Chester Finn, puts it, this volume "obliges us to think on at least three levels: social philosophy (who pays for higher education?), economic analysis (the cost-effectiveness of various alternatives), and what I would call, lacking a more felicitous phrase, political and administrative reality." It is the insistence on just such three-level thinking that distinguishes this volume from most writings on student loan programs and makes it among the most valuable works on the subject.

17:2.0/72

New Patterns for College Lending: Income Contingent Loans, D. Bruce Johnstone, 209 pp. (Columbia University Press, N.Y.).

This volume reports on a study, funded by the Ford Foundation, that was sparked by Yale's 1971 launching of a lending program in which student borrowers had an option of tying their annual repayment obligations to income received over about 25 years. D. Bruce Johnstone, with assistance from Stephen Dresch, devoted a year to analyzing the financial, administrative, legal, and public policy issues arising out of the income contingent loan concept.

The author makes the initial point that income contingent loan proposals are caught in the familiar controversy between those who treat all student loan programs as unsound public policy and those who regard them as acceptable, inevitable, and improvable devices for helping finance higher education costs. Chapter 2 presents the arguments for and against income contingent loans, in concept rather than in practice, and suggests that the opponents raise questions with more than doctrinaire implications.

Chapter 3 lists and describes the variety of income-contingent lending plans extant in the early 1970's (no important new variations have been described since then). Chapter 4 discusses the policy alternatives, all subject to the author's conviction that generalizations in this field are unwarranted: conclusions will depend on particular contexts, on inadequate (because not available) economic data, and on judgments in areas yielding no single right answer. Johnstone does, however, assert that external subsidization of income-contingent student loans would "do considerably more good" than other current and unspecified uses of public higher education funds; that there should be no debt forgiveness except in serious hardship instances, defined as annual payments exceeding 4 percent of income over 10 or 15 years; and that repayment schedules should be long term.

Chapter 5 describes the financial implications of various combinations of policy choices for income-contingent lending. The sixth and final chapter contains Johnstone's view of the future role for such lending programs. He argues persuasively that any such plan—indeed, any sizable student loan program, income contingent or otherwise—"requires the government to either provide the funds or absorb the capital risk." Given that fundamental point, he sees "income contingency as an exciting and potentially valuable type of loan contract."

17:2.0/71

Credit for College: Public Policy for Student Loans, Robert W. Hartman, 152 pp. (McGraw-Hill Book Co., New York).

The Carnegie Commission on Higher Education, impressed in the late 1960's with the growing importance and complexity of student loan arrangements, commissioned a study from the Brookings Institution. This volume, which reports on that study, includes six chapters (95 pages) of analytical materials by Robert W. Hartman, plus his summary of an April 1970 Brookings conference attended by 35 economists, bankers, educators, and government officials who discussed the problems of student loan programs and proposals for change.

Hartman first describes the philosophical bases for analysis of student loan programs, from the one extreme holding that higher education primarily confers private benefits, to the other extreme emphasizing that its benefits are primarily public. The advocates of the first position have no problems with loans as such, though they are opposed to their public subsidization. Proponents of the latter position regard loans as devices to shift the costs of public benefits to private shoulders, and they therefore oppose efforts to make student loans easier to obtain.

The author suggests in Chapter 1 that the debate would be more useful if it were not over whether there should be subsidies for students—manifestly there are—but rather how great the subsidies should be, what form they should take, and who should benefit from them. He proceeds with his analysis by devoting three chapter to descriptions of the workings and effects of existing loan programs. Chapter 5 gives Hartman's conclusions about two questions: Who gets the benefit of present loan programs? Who should get them?

Hartman's chief contribution is in Chapter 5, where he distinguishes between governmental intervention that actually makes student borrowing possible and governmental subsidies in the form of zero or low-interest rates. He sees the former as appropriate, irrespective of the income class of the borrower, and the latter as inappropriate, as a capriciously distributed transfer payment from taxpayers to borrowers (always excepting loan programs highly targeted on low-income students). He also points out that easing repayment provisions, thereby prolonging interest subsidies, is to ask society to pay for greater consumption by young college graduates, and he questions this on equity grounds.

Chapter 6 is devoted mainly to a discussion of a national student loan bank, and suggests that such a bank is the superior alternative regardless of one's views on who should be subsidized and by how much. Hartman concludes the chapter with four pages on the equity and efficiency of NDSL teacher loan cancellations; he finds little of either in the program.

See also: 5:4.3/74 **Paying for College: Financing Education at Nine Private Institutions,** Sloan Study Consortium.

3.0 GOVERNANCE, ADMINISTRATION, AND DELIVERY OF STUDENT AID

17:3.0/81-1

Institutionally-Funded Student Financial Aid, Nathan Dickmeyer, John Wessels, and Sharon Coldren, eds., 120 pp. (American Council on Education, Washington, D.C.).

While government programs contribute by far the largest share of student financial aid, institutions themselves independently provide a good deal of money to help students cover tuition, room, board, and other expenses of college attendance. This study describes the magnitude and nature of student aid that colleges and universities award at their own discretion.

Institutionally funded student aid, as defined for purposes of the study, comes from three primary sources: the instituion's own unrestricted (general) funds, endowment revenues restricted to student financial aid, and private gifts designated for student assistance.

The report discusses such aid in the total context of student support programs and in relation to tuition policies, the recruitment of students, institutional vitality, and government policy objectives. Although most of the data on which the study is based are several years old, the report fills a significant gap in knowledge about patterns of student finance. Both government and institutional policymakers will find it useful.

17:3.0/81-2

Renewing and Developing the Partnership: Federal/State/Campus Cooperation in Student Financial Aid, Robert H. Fenske and Patricia L. Clark, eds., 74 pp. (American College Testing Program, Iowa City, Ia.).

This paper reports on a conference on student financial aid sponsored in 1980 by the Department of Higher and Adult Education at Arizona State University. The conference brought together a small group of student aid leaders from the Federal and state governments, institutions, and associations to discuss issues of governance and coordination.

The conference report provides a useful overview of the development, accomplishments, and problems of the Coalition for the Coordination of Student Financial Aid, the voluntary group that grew out of the recommendations of the Keppel Task Force (see 17:3.0/75). The Coalition represents the attempt of non-Federal constituencies to cope with the transfer of major influence over financial aid policies to Washington that accompanied the enormous increase in Federal aid programs in the 1970's. Discussion of the Coalition and its future illuminates the tensions in the student aid "partnership" and the varying views of governance issues held by different partners in the student assistance enterprise.

The conference report includes two papers on the future of the financial aid partnership, one urging a reinforced, voluntary coalition and the other proposing alternative governance structures, including some that move beyond the idea of voluntarism. For the moment, a revitalized coalition is the mechanism chosen by the partners for addressing common interests.

17:3.0/81-3

Student Aid and the Urban Poor, Washington Office of the College Board, 48 pp. (The Ford Foundation, New York).

Despite the billions of dollars spent on student aid programs for needy individuals in the past decade, young people from low-income families continue to enroll in higher education at a much lower rate than youngsters from wealthier families. Many of these low-income families are concentrated in troubled inner cities, whose problems are increased by the inability of many residents to break the chains of poverty and poor education.

This report suggests that part of the reason student aid programs have not been more effective in promoting educational access and opportunity for low-income urban youth lies in the complexity of the aid system itself. The report shows that the system is complex, confusing, and subject to frequent changes. It may be especially intimidating to low-income families, who are not accustomed to dealing with detailed financial records and forms that seem to reflect middle-class norms and lifestyles. Good information and counselng are essential but frequently unavailable.

A number of changes could be made in the student aid system to meet the special needs of the urban poor. The report discusses ways of streamlining the process, improving communications with students, personalizing the system through better one-to-one counseling, and changing existing law.

17:3.0/80

The Impact of Student Financial Aid on Institutions, Joe B. Henry, ed., 110 pp. (Jossey-Bass, San Francisco).

The growth and complexity of student aid pose an array of philosophical and practical issues for college administrators. This loose collection of essays considers student assistance from the vantage point of the campus and in relation to many aspects of college management—finance, planning, marketing, enrollments, student counseling and information services, and student development.

The volume devotes considerable attention to options for simplifying the mechanics by which students apply for and receive benefits—the "delivery system" of student aid. A bewildering multiplicity of programs, funding sources, application procedures, deadlines, rules, and eligibility standards characterize the current system. While this volume is intended primarily for institutional policymakers, the nagging problems of the delivery system involve regulations and decisions by government agencies. Federal and state policymakers may thus also be interested in some of these campus perspectives on the student aid process.

17:3.0/79

The Coming Crisis in Student Aid, William D. Van Dusen, 34 pp. (Aspen Institute for Humanistic Studies, New York).

The title of this publication overstates the concerns of a group of experts who gathered in Aspen in the summer of 1978 to examine the state of student aid policy and suggest issues that needed to be addressed as Congress began reviewing student aid legislation in 1979. While not actually predicting a crisis, the participants did agree that the enormous growth of student aid programs, without coordinated planning or clear-cut goals, and the increasing complexity of the system raise critical public policy issues that need resolution.

This paper reviews the participant-identified issues under several broad headings: the goals and commitments of student aid, the funding of student aid, the operation of the student aid system, the governance of student aid, and the role of student aid in maintaining desired levels of participation in postsecondary education.

17:3.0/77

Recommendations for Improved Management of Federal Student Aid Programs, Student Financial Assistance Study Group, 203 pp. (U.S. Department of Health, Education and Welfare, Washington, D.C.).

In October 1976, Secretary David Mathews appointed a 12-member study group from outside the government to examine the management of HEW student aid programs and to make recommendations for improvement. The group submitted its final report to Secretary Joseph A. Califano in June 1977. While it might be supposed that the intervening change in Administrations would have meant a perfunctory discharge of the study group's task, in fact it produced a major contribution to the literature on student aid programs.

After observing that the Federal Government has no overall philosophy of financial assistance to students, with governing legislation that is a patchwork and an administering agency (HEW) that had given "little thought to good organizational management or control," the study group produces, explains, and justifies 14 recommendations for reform in the administration of student aid programs.

Some of the recommendations are of limited interest because they involve correcting bureaucratic shortcomings that annoy and impede but in themselves present no policy issue of any consequence (such as the failure to prepare manuals and handbooks for most of the programs). However, most of the recommendations flow from informed and thoughtful judgments about perceived flaws in the equity and efficiency of the programs, and so have a claim to attention from a wider audience than a handful of Federal administrators.

The report is oganized into three chapters. Chapter I deals with eligibility and includes subchapters on institutions, students, and lenders. Each subchapter begins with a section on background and issues and is followed by detailed recommendations, each of which is accompanied by a statement of its rationale. The other chapters are similarly constructed. Chapter II deals with delivery systems, with subchapters on allocation of funds for campus-based programs, the institutional funding process for those programs, the student application and award process, information needs of parents and students, and payment processes. Chapter III is devoted to program management and integrity. Subchapters here cover organization and staffing, program management, training, and program integrity.

17:3.0/75

National Task Force on Student Aid Problems, Final Report, 92 pp. (Available from National Association of Student Financial Aid Administrators, Washington, D.C.).

This volume is commonly called the Keppel Report after Francis Keppel, former U.S. Commissioner of Education and chairperson of the National Task Force on Student Aid Problems. Initiated by the College Board and supported by a group of foundations, the Task Force was a voluntary association of representatives of government, higher education associations, and institutions who sought to achieve one goal—simplification of the administration and operation of an increasingly complex set of Federal, state, and institutional student aid programs.

The report is unique because it produced rapid results. The Task Force recommended a common data form for aid applicants, a uniform methodology for determining financial need, and revisions in the conflicting schedules for aid applications and awards. For the most part, these recommendations have been adopted in state, Federal, and institutional student aid programs.

The Task Force would be the first to admit, however, that it fell short of its stated goal. The aid process is still complicated, confusing, and chaotic, particularly for students and parents. There are now common data elements but on several different forms, a unifrom methodology for the administration of some but not all student aid programs, and little early assurance for students of the kinds and specific amount of aid they might receive.

17:3.0/71

New Approaches to Student Financial Aid, Panel on Student Financial Need Analysis, 133 pp. (College Entrance Examination Board, New York).

Since the founding of the College Scholarship Service (CSS) in 1954, financial assistance has been increasingly awarded to students on the basis of demonstrated need. Now about 5,000 institutions, nearly two-thirds of the states, and numerous private agencies use the CSS to compute "need," meaning the difference between student and parental ability to pay (a subjective determination) and cost of attendance (a comparatively objective fact).

This report is the work of a blue ribbon panel chaired by the late Allan M. Cartter and appointed by the College Board in 1969 "to review within the current frame of reference of *parental responsibility* the present CSS system." The panel was clearly troubled by the limits of its charge because it saw an emerging shift from parental to social responsibility for higher educational costs, especially as more low-income students entered college. The allocation of responsibility among the three groups that pay—parents, students, and society—is at the center of today's debate over the form and direction of student finance.

Among its numerous recommendations for the CSS, the panel urges additional aid for low-income students through inclusion of a "negative contribution" and a reduction in their expected contribution to educational expenses from summer earnings. Following the panel's suggestions, the CSS adopted the "negative contribution," but it has not been widely used by institutions or in public programs designed to enhance educational opportunities for the neediest students. The panel also recommends the incorporation of estimates of future earnings and living costs into needs analysis. Such estimates, in the panel's view, are realistic and just, but have never been attempted in practice.

The panel's most significant contribution lies outside its review of needs analysis. Using survey data supplied by colleges, the panel found that need as the primary determinant of aid is a "hoped for" goal and not a reality. Not only are significant resources allocated without regard to need or national purpose, but also high need is a deterrent to admission for many low-income students; when they are admitted and given aid, it is more likely to be in the form of loans and work. The panel concludes that receipt of institutionally controlled or administered grant aid continues to be highly correlated with student ability as measured by test scores and high school grades. Institutions still administer large sums of public monies, and there have been few, if any, recent studies that contradict the Cartter Panel's findings. In fact, some recent studies demonstrate that with increased Federal funds, institutions are increasingly using their own funds to award aid without reference to need.

4.0 SPECIAL TYPES AND RECIPIENTS OF AID

17:4.0/80

The Interaction of Public Assistance and Student Financial Aid, Nancy R. Murdrick, 19 pp. (College Entrance Examination Board, New York).

Low-income families may be eligible for financial help in the form of both public assistance to meet everyday living expenses and student financial aid to help pay college costs. Public assistance and student aid programs, however, operate largely independently of one another, and families receiving both kinds of help can suffer unexpected and frequently unintended consequences.

This preliminary study of a largely unexplored problem shows, using case studies based on New York State laws and regulations, how families receiving aid from one source sometimes find their eligibility for aid from the other source reduced. The actual effects of the interaction of student aid and public assistance differ from state to state and also from family to family. One result is that low-income families have almost no way of knowing in advance what resources they will have for meeting college costs and therefore may be discouraged from participating in postsecondary education. The paper explores these problems and suggests some possible remedies.

17:4.0/78

Veterans' Educational Benefits: Issues Concerning the GI Bill, Congressional Budget Office, 53 pp. (U.S. Government Printing Office, Washington, D.C.).

This study is one of two (see also 17:4.0/73) done during the 1970's that grew out of congressional questions about the Vietnam era GI bill, in this case, about the adequacy of educational benefits in veterans' readjustment to civilian life and the effects of these benefits on the educational community. This volume addresses these two concerns and evaluates proposals to raise benefits and extend the eligibility period.

The analysis will be useful to anyone interested in the background and impact of educational assistance to veterans. Since this study was published, however, concerns about the adequacy and educational effects of Vietnam-era veterans' benefits have been eclipsed by a more pressing concern: how educational benefits can or should affect military recruitment. The issues of national defense and the effects of the All-Volunteer Force have refocused attention on the role of educational benefit programs in attracting volunteers to the military and keeping them in the service past their enlistment period, questions that are not addressed in this report.

17:4.0/77

Social Security Benefits for Students, Congressional Budget Office, 25 pp. (U.S. Government Printing Office, Washington, D.C.).

This paper, requested by the Subcommittee on Postsecondary Education of the House of Representatives Committee on Education and Labor, is an important part of the scarce literature on a little-publicized $2 billion Federal student aid program: the continuation of Social Security dependents benefits to 18- to 21-year-olds who would lose their status as eligible beneficiaries if they were not full-time students.

The paper begins with a description of the origin of Social Security student benefits in 1965 (when no Federal student grant programs existed) and traces the growth of these benefits over the next decade, by which time they included one-eighth of all full-time enrolled 18- to 21-year-olds. The author identifies several policy issues that were either inherent in the program when enacted or have risen by reason of subsequent Federal legislation creating other delivery systems for student aid. The main issues identified grew out of: (1) the method of financing the student benefits; (2) the absence of a needs test (about one-third of the beneficiaries come from families above the median income level); (3) the lack of coherence between Social Security student benefits and other Federal student aid programs that were enacted later; and (4) confusion over the nature of the program (i.e., is it aid to students or is it aid to families?).

The paper concludes with a discussion of the budget implications and the arguments for and against various possible changes in the program, ranging from a shift of its financing to general revenues to its complete termination.

17:4.0/74-1

Financing Part-time Students, Committee on the Financing of Higher Education for Adult Students, Robert J. Pitchell, Chairman, 118 pp. (American Council on Education, Washington, D.C.).

This volume contains the report of the American Council on Education's Committee on the Financing of Higher Education for Adult Students. The Committee reports four principal findings. First, a majority of all postsecondary students attend school on a part-time basis, and their proportion of the whole is increasing. Second, part-time students are essentially different from full-time students: they are mostly employed, they are older, and they are more concerned with occupational needs. Part-time and full-time students are alike, however, in seriousness of purpose, in ability, and in performance. Third, regardless of family income, part-time students on the whole, when compared to full-time students, are massively discriminated against in financial terms. Fourth, Federal and state categorical problem-solving programs (such as cooperative agriculture extension, law enforcement assistance, and drug abuse education) satisfy the educational needs of special adult clientele groups in a manner not possible under any other organizational or financing scheme.

The Committee recommends a number of changes calculated to correct the discrimination it perceives, including proportional eligibility for student financial assistance as a matter of right, and tax credits for individual wage-earner educational expenditures, even if not directly related to employment. The Committee believes that, by and large, professional and occupational continuing education should be financed from private sources. The Committee also urges Federal general support for strengthening institutional delivery systems for part-time students whose education and training would serve the public interest.

17:4.0/74-2

Who Pays? Who Benefits? College Scholarship Service, 102 pp. (College Entrance Examination Board, New York).

Following the 1971 ratification of the 26th Amendment—which lowered the voting age to 18—the problems, real and fancied, attendant upon the independent student grew rapidly, as did the numbers of such students, causing much policy confusion among institutions and financial aid administrators. Given this situation, the College Scholarship Service convened a national invitational conference on the independent student in the spring of 1974, at which the 140 participants explored such issues as: What is an independent student? What are the psychological and social implications for students, and the economic and political implications for everybody, growing out of the rising numbers of young people claiming and being granted status as independent adults?

The conference heard presentations from experts in politics, economics, sociology, financial aid, and law. Those presentations, plus a paper delivered by a spokesperson for the National Student Lobby, make up the body of this volume. While to some extent the conferees were concerned with nonfinancial issues (mainly involving the vanishing role of institutions as regulators of student behavior), they were overwhelmingly interested in discussing money, who should get it, and on the basis of what standards.

The conference concluded without formally adopting any policy positions or recommendations. But there evidently was general agreement on the following propositions: (1) financial information from all parents of dependent aid applicants should be expected, and parental ability (not willingness) to pay should enter into award decisions; and (2) in deciding who is independent, and therefore for whom parental financial information would be irrelevant, the test used should be that the student is not currently claimed as a dependent for Federal income tax purposes by anyone other than a spouse, and that the student certifies that no support will be received from parents during the year for which aid is requested.

17:4.0/73

Educational Assistance to Veterans: A Comparative Study of Three GI Bills, James L. Bowman, 443 pp. (Educational Testing Service, Princeton, N.J.).

In the spring of 1973, the Congress directed the Veterans Administration to obtain "an independent study" comparing the adequacy and effectiveness of educational assistance programs for Vietnam era veterans with those that followed World War II and the Korean War. This report is the product of that study.

The title of the report suggests that the authors were examining statutory provisions, whereas in fact they made an extended study of the operations of the three GI Bill programs involved, to *include* comparisons of participation rates, benefits, kinds of training obtained, extent of counseling provided, fraud and abuse, impact on the disadvantaged, and the like.

The report is valuable chiefly as a historical and statistical chronicle of the peaks and valleys of changing social and political attitudes about educational assistance for ex-servicemen. While, superficially, the attitudes have remained more or less constant, actual experiences have been far different. World War II was a "popular" war in which most able-bodied young males served, and they were returned to civilian life in huge numbers over a single 18-month period. Vietnam was an unpopular war in which most able-bodied males did not serve, and those who came back to civilian life did so in monthly driblets over an 8-year period. It has taken a continuous act of will to avoid blaming Vietnam-era veterans for their own plight. Unlike their fathers, they got no parades. And the Bowman report suggests, though it falls short of demonstrating conclusively, that they got less educational assistance as well, however measured.

5.0 STATISTICAL STUDIES AND REFERENCES

17:5.0/A-1

National Association of State Scholarship and Grant Programs, Annual Survey, Pennsylvania Higher Education Assistance Agency (PHEAA, Harrisburg, Pa.).

This annual survey of state need-based scholarship and grant programs was first conducted in 1969-70. The survey is primarily descriptive, providing basic information on each state program such as funding level and number of awards, eligibility, need analysis methods, and packaging philosophy.

17:5.0/A-2

The College Cost Book, 19-- (College Entrance Examination Board, New York).

For the past 10 years, the College Board has annually published the budgets that institutions use and submit to the College Scholarship Service (CSS) to determine the financial need of aid applicants. At first, this publication (formerly titled *Student Expenses at Postsecondary Institutions)* was simply a compendium of student budgets with some brief introductory comments. It therefore had little use outside the CSS membership. Now it is a "best seller" among school counselors and parents, who use the budget in conjunction with another College Board publication, *Meeting College Costs,* to derive preliminary estimates of student financial need at any one of about 2,700 postsecondary institutions.

Researchers, planners, and members of the press also use this publication to track year-to-year changes in college costs. Unlike the cost data published by the National Center for Education Statistics based on its Higher Education General Information Survey (HEGIS), the CSS data are simply reports of average costs of reporting institutions rather than weighted average costs of all institutions. For some researchers, this is one of the few shortcomings of this useful publication.

17:5.0/A-3

CSS Need Analysis: Theory and Computation Procedures for the 19-- FAF, College Scholarship Service, approx. 140 pp. (College Entrance Examination Board, New York).

This book, issued annually, describes the theory and rationale for the College Scholarship Service's (CSS's) system for determining the financial need of aid applicants. It contains a number of sample cases and tables from which one can easily infer the "expected contributions" to educational expenses from families and students with differing economic circumstances. The book also prescribes methods for treating families with unusual circumstances—e.g., divorced, separated, businesspersons, and farmers.

In addition to these technical sections, the book contains a brief history of the College Scholarship Service and a discussion of the Principles and Practices of Student Financial Aid Administration, which have been endorsed by the nearly 2,000 institutional members of the CSS Assembly.

The book stresses that individual financial aid administrators must use their own judgment in determining student need. The CSS system, however rational and sophisticated, cannot substitute for the experience of aid administrators who must deal with individual families and individual problems.

17:5.0/A-4

Fiscal Operations Report/Application for Campus-Based Aid (FISAP), U.S. Department of Education, computer tape, (U.S. Department of Education, Washington, D.C.).

Each year over 3,000 postsecondary institutions complete a form required for institutional participation in the three so-called campus-based Federal student aid programs: College Work Study, National Direct Student Loans, and Supplemental Educational Opportunity Grants. The "Fiscal Operations" section of the form requests data on the recipients of campus-based funds in the previous year by income, and information regarding the disbursement and management of program funds. The "Application" section asks for information on current year enrollment, the income distribution of the previous year's financial aid applicants, and the amount of Pell Grants and state need-based grant funds the institution received.

The universal nature of the FISAP allows analysis of the programs as they operate at a single institution, as well as in the aggregate on state, regional, and national levels. In 1978, the Application was consolidated with the Fiscal Operations report, thus providing in one source extensive information on aid recipients and institutional effort in student aid. The annual FISAP data, on computer tape, may be obtained on request from the U.S. Department of Education, Washington, D.C.

See: 16:3.0/A-1 **The American Freshman: National Norms for Fall 19--,** Alexander W. Astin, Margo R. King, and Gerald T. Richardson.

This annual survey (commonly known as the CIRP survey) of first-time, full-time freshmen enrolled at institutions of higher education was begun in 1966. Sample sizes differ from year to year, but the survey generally includes between 150,000 and 250,000 students at over 300 nationally representative institutions. Students are asked to provide information on their demographic and economic background, sources of financial aid, educational experience, educational and career aspirations, and attitudes toward various aspects of society and the student's role within it.

The CIRP survey has significant limitations. It does not cover part-time or older students, and some researchers consider the financial aid information unreliable because it is student reported. However, the survey provides the only available means for examining changes in the profiles, attitudes, and financing patterns of incoming freshmen over a long period of time. The survey has been especially useful in revealing changes in the means by which students finance college during a period that saw tremendous growth and change in government programs.

Information about the surveys can be obtained from the Laboratory for Research on Higher Education, Graduate School of Education, University of California, Los Angeles.

17:5.0/S

The Journal of Student Financial Aid, National Association of Student Financial Aid Administrators (Washington, D.C.).

This journal, published several times a year, is the official publication of the National Association of Student Financial Aid Administrators. It is a continuing source of technical research and commentary on student financial aid, with an emphasis on policy and managerial problems at the campus level. A recent feature of the *Journal* is regular listings of relevant dissertations in progress or completed.

17:5.0/81-1

State Need-Based College Scholarship and Grant Programs: A Study of Their Development, 1969-1980, Robert Fenske and Joseph D. Boyd, 51 pp. (College Entrance Examination Board, New York).

For 11 years, as director of the Illinois State Scholarship Commission, Joseph Boyd conducted the annual survey (see 17:5.0/A-1) of state scholarship and grant survey on behalf of the National Association of State Scholarship and Grant Programs (NASSGP). In this paper (Report No. 81-7), he and Robert Fenske summarize the data collected over those years and describe the origins of state programs, their relationships to other sources of student assistance, differences among states, and the outlook for state aid in the 1980's. The annual NASSGP survey is the best source of data on state student aid programs, and this paper is especially valuable because most of the individual annual reports from previous years are no longer available.

17:5.0/81-2

The Initial Impact of the Middle Income Student Assistance Act Upon Undergraduate Student Aid Recipients at Independent Colleges and Universities, Virginia Ann Hodgkinson, 136 pp. (National Institute of Independent Colleges and Universities, Washington, D.C.).

The National Institute of Independent Colleges and Universities (NIICU) is assembling a valuable new data base on aid to students at independent colleges and universities. Unlike most student aid information, which is based on program statistics and reveals little about the impact of aid policies on individual students, the NIICU data are based on surveys of student aid records for a sample of students at selected private 2-year and 4-year colleges. NIICU is collecting demographic data, information on costs of attendance, and detailed descriptions of financial aid by source for each student in the sample.

This monograph is one of the first in a series of periodic reports to be published on student aid in the independent sector. It draws on results of the 1978-79 and 1979-80 NIICU surveys of undergraduate student aid records, comparing the characteristics of recipients and of student aid packages before and after passage of the Middle Income Student Assistance Act (MISAA). The report furnishes a wealth of data about how parents and students finance a private college education and how various forms of aid are distributed on the campuses.

As a spin-off of the NIICU data collection effort, three other associations—the National Association of State Universities and Land-Grant Colleges, the American Association of State Colleges and Universities, and the American Association of Community and Junior Colleges—have begun to compile a similar data base on student aid in public institutions of higher education. The first survey covering the public sector is being conducted in the academic year 1981-82, and published reports comparable to NIICU's will follow.

17:5.0/80-1

Community Colleges and Their Share of Student Financial Assistance, Susan C. Nelson, 61 pp. (College Entrance Examination Board, New York).

This paper addresses two frequent concerns about community college participation in student aid programs: whether such colleges are underutilizing these programs, and whether community college students benefit from "overawarding" because of the relatively low costs of their education. While the study is interesting for its answers to these questions, it is included here more because of the light it sheds on the conceptual and data problems inherent in this type of analysis.

The author provides an indepth discussion of methodological approaches and difficulties in evaluating student aid programs. Common definitions of need and consensus on such issues as the costs of education to be considered, the role of parents and students in meeting college costs, and the appropriate balance between grant and "self-help" assistance are all lacking. The author shows how the limitations of available data restrict the analyst's ability to answer important questions about the effects of aid policy on various types of students and institutions.

17:5.0/80-2

Study of Program Management Procedures in the Campus-Based and Basic Grant Programs, Applied Management Sciences, approx. 300 pp. (U.S. Department of Education, Washington, D.C.).

This study, published in several parts, presents the results of three surveys carried out by Applied Management Sciences under contract to the former U.S. Office of Education. The first survey, conducted in 1978-79, includes information on 12,000 undergraduate financial aid recipients in a stratified sample of 175 institutions. Data on the demographic, economic, and educational backgrounds of each student and information from the student's financial aid file are included. Some of the information was provided by the student and some by the financial aid office. A second, similar survey, conducted in 1979-80, sampled another 12,000 aid recipients at the same 175 institutions. Thus, two comparable years of data are available.

The third survey contains information on the management of the campus financial aid office. Questions regarding the office staff, recordkeeping procedures, and packaging were asked of financial aid officers, and the survey reports responses from 764 institutions.

The two student surveys constitute the only recent nationally representative sample of undergraduate aid recipients. Moreover, they provide a glimpse of the impact of the Middle Income Student Assistance Act by surveying students before and after the passage of the Act. The institutional survey reveals much about the administrative patterns and relative capacity of institutions for managing financial aid.

17:5.0/79

Patterns of Funding, Net Price and Financial Need for Postsecondary Education Students: Differences Among States, Institutional Sectors and Income Groups, John Augenblick and William Hyde, 66 pp. (Education Commission of the States, Denver, Colo.).

Augenblick and Hyde use data from the 1979 Cooperative Institutional Research Program (CIRP) survey of first-time, full-time freshmen to evaluate the impact of financial aid on students in different states, institutional sectors, and income groups. Their report is one of the first attempts to assess the effects of aid programs on individual students.

In this case, data limitations force them to focus on an artificial "average" student, a problem that they readily acknowledge. They provide a useful discussion of the limitations of CIRP data in particular, and note that information on individual students from the files of institutional financial aid officers would be better. Such information is now becoming available (see 17:5.0/80-2).

17:5.0/78

Guide to the Literature of Student Financial Aid, Jerry S. Davis and William D. Van Dusen, 166 pp. (College Entrance Examination Board, New York).

This publication is intended as a sourcebook for anyone conducting research or wanting to learn more about student financial aid. It contains over 800 bibliographic entries, each briefly annotated and organized under the following chapter headings: "Sources of Program Information"; "History, Philosophy, and Purpose of Aid"; "Financial Aid Administration, Management, and Problems"; "Financial Aid Administration as a Profession"; "Federal and State Issues and Problems in Student Aid"; "Financial Aid and Financing Postsecondary Education"; "Research on Financial Aid." Each chapter begins with an overview and orientation, followed by the annotations. The authors have attempted to be inclusive, covering as much fugitive literature as possible by culling a variety of bibliographic references, catalogs, and standard information services.

6.0 CROSS-NATIONAL COMPARISONS

17:6.0/78

Review of Student Support Schemes in Selected OECD Countries, Maureen Woodhall, 131 pp. (Organization for Economic Cooperation and Development, Paris).

This paper reviews student support programs in 10 countries: Australia, Canada, France, Germany, Japan, the Netherlands, Norway, Sweden, the

United Kingdom, and the United States. It demonstrates the parallel shifts in almost all of these countries to need-based aid and to support for an ever-growing proportion of students. It also indicates the similarity of concerns in different countries: whether to help students through grants or loans or through indirect subsidies such as tax allowances, how to identify and treat independent students, how to coordinate various kinds of aid to students, and how to decrease the burden of indebtedness on graduates. Further, these cross-national comparisons highlight the difficulties of identifying the effects of student aid: not only do programs change in nature and purpose over time, but countries with different financial aid schemes in some cases show similar enrollment changes.

The most useful (and largest) part of the study is a detailed country-by-country description of programs as they existed in the mid-1970's. Information is given on: type and purpose of aid, proportion of students receiving aid, administration of aid, level of aid, eligibility of students for financial assistance, tuition fees, conditions of student aid, financial aid for secondary school pupils, other forms of financial assistance and sources of income for students or their families, and evaluation of student aid programs and proposals for change.

American readers will appreciate the author's observation that "of all the countries included in this study, the United States has the most bewildering array of student aid programs"! The author of this paper is currently working on a comparative study of student loan policies in the United States and the United Kingdom.

18

Work and Education

Lewis C. Solmon
assisted by Joanne J. Gordon

The topic Work and Education covers a variety of issues regarding the role of higher education in preparing people to meet the nation's demand for trained manpower. These issues involve, among other things, the marketability of traditional liberal arts and vocational preparation, the job market for those with advanced degrees, and the accuracy of models in forecasting students' selection of and success in certain fields. Underlying each issue are the implications of the relationship between education and work for planning and policymaking at the Federal and state levels.

Much recent public policy has dealt with the financing of higher education institutions. To the extent that funding is in part justified by the fact that colleges and universities produce graduates to meet state and national labor requirements, the ability of graduates to secure productive jobs commensurate with their level of training is also of vital concern. Institutions must convince state and Federal policymakers that their graduates are satisfying important labor needs and that education provides certain personal and social benefits to society. This places greater emphasis on consumerism and accountability in higher education, with decisions to expand or contract certain programs depending, in part, on projections of labor requirements.

This section emphasizes literature dealing with the relationship of work to higher education. The role of the noncollegiate sector of postsecondary education in providing certain occupational skills is covered under Topic 35, Private Career Schools. Volumes included in this chapter have been chosen for their usefulness in acquainting readers with current work and education issues, for their impact on educational policy, and for their comprehensiveness in presenting critical analyses and persuasive position statements.

Materials dealing with credentialing, or the view of schooling as a societal screening and sorting device, are integral to a thorough treatment of the work and education topic, and so have been included. However, a possible subtopic—human capital, education as an investment in people—is excluded because it deals more specifically with education than with work. Similarly, a subtopic dealing with the quality of working life is not included for it is only indirectly concerned with education. Finally, materials covering lifelong learning are excluded because such education is viewed as a continuous enrichment process not limited solely to occupational training or retraining. (For a discussion of lifelong learning, see Topics 34 and 4.)

The annotations in this section fall under seven subtopics.

Career Development. This subtopic focuses on the nexus between a student's education and work. Issues include vocational development and occupational choice, career counseling, and providing job market information to students.

Career Education. Citations listed here provide an overview of the effectiveness of career information as it reaches students and affects their career choices. Entries involve "eventual versus intended" careers, job expectations versus the actual situation, and making institutions more responsive to students' occupational needs.

Job-Related Outcomes. Although there are many benefits from attaining a college education, the citations here are restricted to the job-related outcomes of higher education, such as job satisfaction, job challenge, and income. Much of the literature in this area surrounds the controversial issues of "overeducated" or "underemployed" college graduates.

The Credentialing View. Most of the references in this chapter assume, either explicitly or implicitly, that a postsecondary education does or should facilitate career development because of the additional skills and competencies it provides. The citations in this subtopic give an alternative interpretation of the role of education in career development. Although the views expressed are contrary to the interpretations of many traditional economists, they warrant consideration by those interested in the relationships between work and education.

The Job Market for Ph.D.'s. In the past few years, the job market for Ph.D. holders has changed radically. As new openings in academe become scarce, humanists and scientists will have to begin to look more to nonacademic, or in some cases nontraditional, employment opportunities.

Forecasting. As hazardous as it is to forecast the need for human resources, it is essential to project and plan for the supply and demand of future workers. General theoretical approaches and specific forecasts are considered here, among them the effects of labor projections on society, educational institutions, and students themselves. Although much of the work on forecasting has focused on Ph.D.'s, projections of labor supply and demand for those with bachelor's and master's degrees are also included.

Basic Data Sources. This subtopic briefly lists the most useful sources of data regarding college-educated workers. Most entries are revised or updated periodically and provide useful references for analyzing various aspects of the work and education topic.

TOPIC ORGANIZATION

18: Work and Education
  1.0 Career Development
  2.0 Career Education
  3.0 Job-Related Outcomes of Higher Education
  4.0 The Credentialing View
  5.0 The Job Market for Ph.D.'s
  6.0 Forecasting
  7.0 Basic Data Sources

1.0 CAREER DEVELOPMENT

18:1.0/79

Enhancing Women's Career Development, New Directions for Education, Work, and Careers, Barbara A. Gutek, ed., 107 pp. (Jossey-Bass, San Francisco).

This volume in the "New Directions" series is a sourcebook on the career development of women—a topic that has recently come to the attention of counselors, researchers, news media, and women interested in changing or starting careers. Because the topic "career development" covers choice of occupation, broad socialization factors that limit or facilitate career choice, career planning, and the interdependence between home and work, career development in this monograph is broadly defined as progression from one goal to another, regardless of whether the goals are work or life related.

The nine chapters in this book draw on research from several disciplines, including measurement and testing, social psychology, organizational psychology, and education. Chapter One deals with selection of an occupation. One of the results of the changing concept of sex roles has been a shift by female college freshmen from education programs—a traditionally female field—to business programs—a field traditionally dominated by men.

Chapter Two reviews literature on the determinants of women's career choices, focusing especially on traditional versus nontraditional careers. Chapter Three discusses various psychological factors that are relevant to the career development of women. The author presents results of research on how to help women develop and realize career goals. For instance, research shows that if educational institutions want to promote goal setting, they must have a background of female achievement, live role models, and a diversity of choices. Goal setting is also the topic in Chapter Four. Barriers and ways to overcome them in goal setting for women are discussed, but with emphasis on the roles played by individuals and work organizations rather than by educational institutions. Both Chapters Three and Four assume that goal setting is necessary to career development.

Chapters Five and Six deal with tests that have been used extensively in the past to help women determine initial career choices and the biases inherent in such tests. The next two chapters cover women on the job: Chapter Seven deals with women as business owners and their specific needs, and Chapter Eight deals with what women want from their jobs versus what they actually get. The final chapter deals with career competence and how this relates to the overall well-being of women. As is true of men, women who have benefitted from successful career planning and development are more satisfied than women who have not.

Evident throughout these chapters is the significance of the role played by higher education in facilitating women's career development. Also evident is the interest in women's career potential and development *not only* by colleges and universities, but by women themselves and the organizations in which they work.

18:1.0/76

Occupational Information: Where To Get It and How To Use It in Career Education, Career Counseling, and Career Development, Robert Hoppock, 383 pp. (McGraw-Hill book Co., New York).

In this book, Robert Hoppock, professor emeritus of counselor education at New York University, draws upon his considerable experience to educate professionals involved in occupational counseling or the distribution of occupational information. Parts of the book will be of interest to educators, economists, and sociologists who are concerned with the problems of occupational choice, distribution, mobility, and adjustment.

Several chapters are particularly noteworthy. For instance, Chapter 4, "Sources of Occupational Information," lists resources and gives suggestions to counselors for appraising the accuracy of occupational data. Chapter 20, "Computers and Other Methods of Getting and Using Occupational Information," discusses the use of view decks, job banks, and other computer systems in storing and retrieving occupational information. Chapter 23, "Suggestions for School and College Administrators," discusses components of a minimum program of occupational information services for an accredited school or college. Chapter 25, "Evaluation," summarizes the results of research designed to determine the impact of occupational information on subsequent occupational adjustment. The book contains a comprehensive bibliography.

18:1.0/75-1

College Graduates and Their Employers—A National Study of Career Plans and Their Outcomes, Ann Stouffer Bisconti, 35 pp. (College Placement Council, Bethlehem, Pa.).

Career development can be viewed as a two-stage process involving planning/preparation and work experience. This study, based on a nationally representative sample of 1961 college freshmen, is concerned with the career development of college freshmen during the second stage, the early years of employment. It is a followup of an earlier study (*Career Plans of College Graduates of 1965 and 1970*, Helen S. Astin and Ann S. Bisconti, 28 pp., College Placement Council Foundation, 1973) that examined the same cohort during the first (preparation) stage, from freshman year (1961) to graduation (1965).

Occupations reported by these men and women in 1970 are compared with the plans they expressed in 1965. Also examined are the relationships between current occupation and undergraduate major. The report discusses the relative importance of professors, instructors, and faculty advisors in influencing students' career choices, as well as the role of college placement officers and other persons or agencies in helping graduates find work in various occupations.

18:1.0/75-2

Labor Market Information for Youths, Seymour L. Wolfbein, 262 pp. (Temple University School of Business Administration, Philadelphia, Pa.).

This book is an assessment of the role of labor market information in helping young people in what Seymour Wolfbein, dean of Temple's School of Business Administration, calls "the school-work connection." The author represents both the school and the work sides of this connection.

The book includes discussions of the social policy issues involved in improving the connection and implications for new institutional formats. Kinds of labor market information, methods of making it available, and the potential for improvement are presented. The final chapters of the book give specific program descriptions, review the newer objectives in obtaining and disseminating information, and discuss organizational implications. Practitioners will find case histories that not only describe new programs but that also evaluate and recommend courses of action.

18:1.0/73-1

Study Report: Youth and the Meaning of Work, David Gottlieb, Virginia H. Sibbison, Anne L. Heinsohn, and Martin Ford, 317 pp. (College of Human Development, Pennsylvania State University, University Park).

This book examines the attitudes and expectations of men and women who are in the process of making a postcollege transition. The book reports the findings of a survey in which the respondents were 1972 graduating college seniors from four different types of institutions in Pennsylvania. The authors draw comparisons between this sample and the National Opinion Research Center study of American college seniors who were graduated in 1961.

Two chapters are of particular interest. Chapter 5, "The World of Work and Careers," identifies the variables that appear to influence feelings about work, job expectations, and career preferences. Data provide the reader with an idea of the students' concerns about their postcollege futures. Chapter 6, "The Educational Experience," presents a survey in which students compare their expectations and the realities of the college experience. An annotated bibliography of 59 studies that focus on youth attitudes and the meaning of work is included in an appendix.

18:1.0/73-2

Theories of Career Development, Samuel H. Osipow, 328 pp. (Appleton-Century-Crofts, New York).

This book is written for the practitioner concerned with the theoretical and practical aspects of career development. The author discusses theories with respect to their potential utility for career counseling, synthesizes the most useful constructs of the various theoretical positions, and identifies elements common to most of the theories.

The following theories are discussed in detail: the developmental approach models of Ginzberg and Super; the personality models of Holland and Roe; psychoanalytic and sociological theories; and the trait/factor approach to career choice. In addition, research directed at identifying personality traits of people in specific occupations is treated at length. In the final chapters of the book, the major theories are compared and issues in the translation of theory into practice are presented with an eye to the implications for career counseling and program development.

2.0 CAREER EDUCATION

18:2.0/79-1

Education for Employment: Knowledge for Action, Task Force on Education and Employment, National Academy of Education, 274 pp. (Acropolis Books, Washington, D.C.).

This book presents a review of the relationship between education and employment undertaken by the Task Force on Education and Employment. In addition to assessing the existing knowledge base in this area, the book indicates areas in which further research and experimentation are needed. Influencing the tone and substance of the book are the assumptions that education is not restricted only to schools and colleges and that employment does not include only work for pay. The book is directed toward the various sectors involved in the education-work relationship—namely, employers, union leaders, educators, students and parents, other adults, government policymakers, and the research community.

18:2.0/79-2

Preparing Liberal Arts Students for Careers, New Directions for Education and Work, Ed Watkins, ed., 104 pp. (Jossey-Bass, San Francisco).

This volume examines how a liberal arts college might make its graduates more valuable in a competitive marketplace. The book is directed primarily toward the college placement officer, who is seen as the person accountable for matching the skills of the liberally educated with the needs of the employers. Aspects of the career development process that are addressed include: the pre-enrollment phase, academic advising, experiential learning and curriculum planning, the placement of liberal arts graduates, and how a college can use employers in improving the student product.

Generally, in order to improve the marketability of its graduates, the liberal arts college must incorporate the career development concept into its prevailing college framework and then implement programs that relate to this developmental objective.

18:2.0/78-1

Implementing New Education-Work Policies, New Directions for Education and Work, Paul E. Barton, ed., 108 pp. (Jossey-Bass, San Francisco).

Joint efforts in the implementation of education-work policy increasingly seem to be taking place between employers, unions, government, and voluntary service agencies through community education-work councils. This monograph reports on the creation and development of one such council (with the intention of guiding other communities wishing to emulate this effort) describes the various relationships that exist between educational and work institutions. These descriptions are drawn from a series of miniconferences involving all sectors of the economy and education.

Although the book deals almost entirely with actual experience, it is not intended to deter others from conceiving of new ways to achieve desired objectives. The overriding thrust of the book is that, regardless of the specific issue of education-work policy involved, implementation requires a joint effort by all segments of society.

18:2.0/78-2

Reassessing the Link Between Work and Education, New Directions for Education and Work, Lewis C. Solmon, ed., 112 pp. (Jossey-Bass, San Francisco).

This publication, drawing on the viewpoints of leading thinkers concerned with the education-work relationship, examines the major social changes affecting the link between education and work and discusses how this link might be further developed and improved. Although each article addresses specific problems, the book's overriding topic is the evaluation of the total impact of education. This sourcebook would be helpful in stimulating the thinking of educational planners and other concerned with education and work, since fundamental issues are addressed and specific recommendations are made.

18:2.0/77-1

Educating for Careers: Policy Issues in a Time of Change, Thomas F. Powers and John R. Swinton, eds., 190 pp. (The Pennsylvania State University Press, University Park).

This volume discusses the relationship between education and work—especially the issue of educational preparation for work——from a policy perspective. The discussion revolves around one basic issue: how to protect the liberal arts and general education from the encroachment of purely vocational interests while improving the practicality of education by making it more realistic, current, and work related.

The book presents three distinct perspectives. Part I, "Education and Work: Agencies and Their Responsibilities," provides a historical and philosophical perspective of education and work and highlights the roles played by school and industry in educating for careers. Part II, "The Relationship of Education to Employment and Work," provides a social perspective useful for viewing the economic utility of educating for careers and the effect of social stratification on escalating educational credentialism. Part III, "Education for Work: Certification and the American Class Structure," provides a curriculum design perspective that explores how the fullest and best education for both work and nonwork roles can be delivered in traditional and nontraditional ways. This book takes on a policy view in the hope of providing a basis for both reflection and action by practitioners and administrators concerned with occupational education.

18:2.0/77-2

Help Wanted: Articulating Occupational Education at the Postsecondary Level, David S. Bushnell, ed., 49 pp. (Center for Vocational Education, Ohio State University, Columbus).

This publication is concerned with the future planning of education and work, focusing particularly on making institutions more sensitive to the needs of students at the various stages of living, working, and learning. Strategies are presented for instituting effective relationships between educational institutions and commercial organizations and for disseminating career information. Also included are examples of successful joint ventures between academic and occupational educational programs at the state and local levels. Emphasis is on the efficient use of community resources.

18:2.0/77-3

Toward a Federal Policy on Education and Work, Barry E. Stern, 146 pp. (U.S. Government Printing Office, Washington, D.C.).

This monograph describes current issues in the area of education and work, and examines whether and to what extent current Federal, state, and local programs are addressing these issues.

After presenting a brief introduction to the subject matter, the book concentrates on the two broad areas of youth and adults. Part I identifies the problems young people face in making a successful transition from school to work and attempts to assess the effectiveness of current programs, especially Federal programs, in addressing these problems. Program options are set forth, and general considerations for implementation are stated. Part II focuses on the problems adults face in making desired changes in their careers or life directions, and particularly the job shortage problem and its relationship to educational and leisure opportunities. The author suggests a more balanced distribution of work, leisure, and education throughout the various stages of one's life. Policy recommendations are made to this end, providing information needed for further progress.

Although the book is directed primarily to Federal concerns, it is also useful to policymakers at the state and local levels who must deal with the same kinds of issues. It can also be of use to researchers since, throughout, it gives broad hints about new kinds of data and analyses needed for more refined policy formulation.

18:2.0/76

Education and Work: Report of a Seminar, Patricia Smith, 47 pp. (American Council on Education, Washington, D.C.).

This book reports on a 1976 seminar on education and work sponsored by the Policy Analysis Service of the American Council on Education. The seminar provided a setting where members of the postsecondary education community could meet to develop a plan of action for improving relations between education and work—especially for young people. Its intent was to stimulate responses from academic institutions, government agencies, and the general public to problems faced by young people making the transition from school to work.

The seminar focused on a book by Willard Wirtz and the National Manpower Institute, *The Boundless Resource: A Prospectus for an Education/Work Policy* (see 18:2.0/75-3). The book states that there is a "dysfunction" between schools and jobs in American society, with symptoms ranging from high youth unemployment to the preparation of young people for jobs that do not exist. Wirtz felt at that time that programs designed to alleviate these problems were not successful and that the "dysfunction" was happening on a much larger scale, as evidenced by national unemployment among adults and young people, and by the depletion of natural resources. According to Wirtz, the only feasible solution to the problem "is to rebuild our ideas and plans around the fuller development of those other resources which are called 'human' and which are in limitless supply." The book analyzes youth and career years and concludes with specific recommendations for change.

Issues discussed at the seminar in relation to the book include: how to introduce young people to adult opportunities and responsibilities; whether the community-based education-work councils advocated in Wirtz's book would have the necessary authority and funding to function effectively; and who would lead in finding democratic and socially acceptable ways to redistribute income more equitably, as endorsed in the book.

There was general agreement that some social restructuring is necessary: the community needs to be involved, and all levels of schooling have definite responsibilities for altering society's view of education and work. Disagreement centered on Federal and state roles and the type and level of programs to be administered. The crux of the seminar was that collaborative processes should be developed to bring education and work closer together.

18:2.0/75-1

Bridging the Gap: A Selection of Education-to-Work Linkages, Richard I. Ferrin and Solomon Arbeiter, 68 pp. (College Entrance Examination Board, New York).

This report focuses on the transition between education and work, barriers encountered in making this transition, and how to smooth the transition. The authors maintain that education and work are and should be distinct and that any linkages developed to bringing the two areas into alignment should not sacrifice the essential functions of either. This study has benefitted from the involvement of practitioners in the areas of education, industry, and labor. It concludes with recommendations for further research and development, particularly by the National Institute of Education.

18:2.0/75-2

"Rally 'Round the Work-place: Continuities and Fallacies in Career Education," W. Norton Grubb and Marvin Lazerson, *Harvard Educational Review*, Vol. 45, No. 4, pp. 451-474.

This article is a critique of the role of the career education movement in preparing students for entry-level jobs. The authors contend that career education is the same as vocational education and thus likely to be as ineffective as vocational education. Further, they question the assumption made by career educators concerning the relationship of education, work, and the labor market. This article has led to widespread public scrutiny of vocational/career education and has served as an impetus for reassessing the link between work and education.

18:2.0/75-3

The Boundless Resource: A Prospectus for an Education/Work Policy, Willard Wirtz and the National Manpower Institute, 205 pp. (New Republic Books Co., Washington, D.C.).

The central claim of this book, as stated in the preface, is "...that the key to bringing education and work closer together is not so much in any particular programs as in developing truly *collaborative processes* among those in charge of these functions including the 'public.'" The difficulty in bridging the gap between school and work is due, in large part, to the depletion of natural resources on which a great part of the economy has been based. The alternative proposed is "...to rebuild our ideas and plans around the fuller development of those other resources which are called 'human' and which are in limitless supply." Parts I and II concentrate on an analysis of youth and career years and specific strategies for change.

Willard Wirtz' recommendations are expanded on in *Education and Work: Report of a Seminar* (see 18:2.0/76).

18:2.0/74

Career Education, Vocational Education and Occupational Education: An Approach to Defining Differences, Kenneth Hoyt, 14 pp. (Center for Vocational and Technical Education, Ohio State University, Columbus).

The author, former Commissioner of Career Education with the U.S. Office of Education, states that the difference between career education, vocational education, and occupational education has long been ignored or, when recognized, not defined. In this monograph, the author defines these terms and their roles in education. He also discusses the implications for changes in vocational education policy and practice in academic settings and the types of Federal, state, and community support systems needed for effective career education programs. The publication ends with a question and answer section.

3.0 JOB-RELATED OUTCOMES OF HIGHER EDUCATION

18:3.0/82

"New Findings on the Links Between College Education and Work," Lewis C. Solmon, *Higher Education*, November 1981 (pp. 615-648).

During the 1970's, the usefulness of postsecondary education to work was questioned by students, faculty, and educational policymakers. The debate centered around concerns that postsecondary education had become commonplace: manpower shortages were evident in certain occupations while surplusses appeared in others, and some claimed that higher education no longer ensured a good job or any job at all. The resulting situation was one, they felt, of underemployment and overeducation. Solmon's paper addresses these concerns to determine if anything can or should be done about the situation.

18:3.0/80-1

Building a Career: The Effect of Initial Job Experiences and Related Work Attitudes on Later Employment, Joseph A. Raelin, 178 pp. (The W.E. Upjohn Institute for Employment Research, Kalamazoo, Mich.).

Joseph Raelin examines the long-term employability problems of youth, focusing especially on the impact of early job experiences and attitudes on their later career development. He takes an interdisciplinary approach and uses data from the youth cohorts of the National Longitudinal Surveys.

Raelin's findings demonstrate that initial work experiences could be critical in shaping future work attitudes and practices, but that these experiences, which are largely determined by background factors, can be overcome to some extent. The book concludes with policy recommendations for improving youth employment opportunities and ensuring that early career opportunities are experienced to their fullest. These recommendations include: providing young people with the best possible jobs at entry; encouraging them to finish school; requiring work experience in addition to formal schooling for job entry and development; discussing young people's expectations openly; developing their career aspirations and sustaining them throughout their early careers; pursuing and enforcing equal employment guidelines and opportunities to assist the young members of subgroups that face inequities in the labor market; furnishing young people with the mobility skills necessary to make successful career transitions; devoting considerable practical attention to aspirations; and *definitely* controlling for sex, race, and education in youth employment research.

18:3.0/80-2

College and Other Stepping Stones: A Study of Learning Experiences That Contribute to Effective Performance in Early and Long-Run Jobs, Ann Stouffer Bisconti, 92 pp. (The CPC Foundation, Bethlehem, Pa.).

This book, a study of productive college graduates, deals with the contributions of college education to job performance, the effect of time on jobs and career development, the roots of effective job performance, considerations in hiring, and considerations in preparing for work. The final chapter looks at college education in perspective and offers suggestions for improving education and work-based learning.

18:3.0/79-1

College Education and Employment . . . The Recent Graduates, Nancy L. Ochsner and Lewis C. Solmon, 118 pp. (The CPC Foundation, Bethlehem, Pa).

This monograph is the culmination of 5 years of study on the use of college training in careers and the significance of an educationally related job to overall job satisfaction. Data were collected on two groups totaling 16,000 college graduates: a sample of 1961 freshmen who responded to surveys in 1961, 1971, and 1974, and a sample of 1970 freshmen who responded to surveys in 1970 and 1977. This report is on the second group of respondents—the 1977 follow-up of the 1970 cohort. (Findings from the first group of students—the 1974 follow-up of the 1961 freshmen—were published earlier.) The studies were designed to parallel each other, and similar criteria were used in selecting the samples. However, there were several notable differences in the situations of the 1974-1961 and 1977-1970 cohorts; for instance, the economy was much stronger in 1974 than in 1977, and the 1974 followup obtained information on those who had been in the labor force for a much longer period than those in the 1977 followup. These differences could affect the comparisons. The major topics covered in this monograph are the occupational choices of college students, their reasons for attending college, their objectives, the usefulness of a college education and its relatedness to work, job satisfaction, and the issue of underemployment versus overeducation. The book concludes on a positive note: a college education is valuable in terms of obtaining a satisfying job and in terms of the nonmonetary returns, which the authors consider exceed the monetary returns. This monograph is useful to students, faculty, placement officers, and educational policymakers who question the value of postsecondary education in work.

18:3.0/79-2

Education & Work: A Symposium, Daniel Heyduk, ed., 83 pp. (Institute of International Education, New York).

This monograph reports on the 1978 symposium on "Education and Work" sponsored by the Council on Higher Education in the American Republics. The purpose of the symposium was to provide for an exchange between Latin American and North American educators on pertinent issues in higher education.

Some of the topics examined at this meeting included: differences between the U.S. and Latin American approaches to education and work, education and work links in the United States in a time of crisis and change, manpower planning, international aspects of cooperative education, and corporate perspectives on the education and work issue. The book represents a diversity of perspectives on the education and work issue from the presidents, rector, educators, and specialists who attended the meeting and contributed their thoughts and ideas. As such, it offers both a better understanding of the education and work issue and a foundation of insights on this topic for future planning.

18:3.0/79-3

Good Jobs, Bad Jobs, No Jobs, Eli Ginzberg, 219 pp. (Harvard University Press, Cambridge, Mass.).

In this volume, Eli Ginzberg, director of the Conservation of Human Resources Program at Columbia University and chairperson of the National Commission for Employment Policy, addresses the complexities of the employment problem (having more job seekers than there are jobs) and national efforts to deal with this problem. The author provides background information about changes in the number and types of jobs available in the United States and parallel changes in the characteristics of job seekers. Part I outlines a framework within which the job problem should be considered and solved; Part II concentrates on "trained manpower"; Part III presents various dimensions of the manpower planning and policy process; and Part IV is directed at the role of politics in manpower economics, especially in employment policy.

18:3.0/78

Local Labor Markets and Cyclic Components in Demand for College Trained Manpower, James P. Smith and Finis Welch, 31 pp. (Rand Corporation, Santa Monica, Calif.).

This paper tests the previously established conviction that earnings are determined solely by skills against the authors' hypothesis that earnings are also influenced by the prices the market attaches to skills. The basis for the paper is earnings data for artificial cohorts of white males from the Current Population Surveys for 1968 to 1975, which provide insights into the fundamental issues of earnings and determination of earnings.

The authors provide summaries of the age structure of the work force and of the larger economic setting and its industrial composition for the period, along with a regression analysis of earnings of new entrants. Although the results are tentative, they *do* suggest that earnings are sensitive to the business cycle. The authors attribute the difference between their findings and those of earlier studies to differences in the definition of region; that is, in earlier studies, region was broadly defined, whereas in this study the data are finely broken down by area. The authors found also that earnings differentials seem more sensitive to employment deviations and trends than they had expected initially. They conclude the paper with a discussion of the ambiguities of their findings, thus emphasizing that they are preliminary.

18:3.0/77-1

Work, Learning, and the American Future, James O'Toole, 238 pp. (Jossey-Bass, San Francisco).

This volume is a critical appraisal of the recent and common belief that work is demeaning and learning is a routine experience tolerated only as a means to a good job. O'Toole attacks conventional assumptions that underlie work and learning, and offers new perspectives on the improvement of both the quality and quantity of jobs. He presents alternatives to current education and work policies that can be implemented within the existing political and social structures. O'Toole's basis for long-range planning is broad and future-oriented, but not impractical or Utopian.

18:3.0/77-2

College As a Training Ground for Jobs, Lewis C. Solmon, Ann S. Bisconti, and Nancy L. Ochsner, 183 pp. (Praeger Publishers, New York).

This book adds balance to the current debate on the value of a college education. It is a longitudinal study of a representative group of college-educated workers in a variety of occupations, the majority of whom are satisfied with their jobs. The authors examine aspects of college that aid in job performance, and they treat at length the relationship between job and college major. Of particular interest is the examination of the use of major field in a job and how this relates to job satisfaction and income. The final chapter analyzes the components of a ''good job'' from the perspective of the worker with a bachelor's degree.

18:3.0/77-3

Relating Work and Education, Dyckman W. Vermilye, 282 pp. (Jossey-Bass, San Francisco).

This volume presents a series of discussions of the issues surrounding the relationship between work and education. Distinguished thinkers approach the topic from a variety of perspectives, ranging from the philosophical to the historical to the pragmatic. Virtually all the articles present implications for policy and practice.

Topics discussed include: the role of higher education in providing work skills, labor market information, and job experience; the relationship between employers and educators; the relationship between education and trade unions; the value of a liberal education in people's careers; strategies for improving the transition between education and work throughout the life span; the role of work as a learning experience; the role of leisure and voluntary activities in career development; strategies for attaining successful careers; the reform of higher education; and the redesign of jobs.

18:3.0/76

Schooling and Achievement in American Society, William H. Sewell, Robert M. Hauser, and David L. Featherman, 535 pp. (Academic Press, New York).

This book examines the complex effects of schooling on socioeconomic achievement in American society. The chapters in Part I, "Achievement in the Life Cycle," discuss the influences of family background on educational and socioeconomic achievement, the interactive psychological forces determining intellective performance and educational achievement, the sociological basis of intelligence, and the characteristics of work setting and job as determinants of earnings. Part II, "Institutional Effects," includes papers that assess the effects of the various features and atmospheres of educational institutions on cognitive and socioeconomic achievement. Part III, "Methodological Issues," contains two chapters that deal with methodological problems.

Although the primary focus of the book is on substantive issues, almost every chapter includes discussions of ways to modify and extend existing statistical methods. The book contains many important findings on the effects of schooling on educational and socioeconomic achievement in American society and, as such, is valuable to sociologists, educators, psychologists, and others concerned with schooling and achievement.

18:3.0/75-1

The Manpower Connection: Education and Work, Eli Ginzberg, 258 pp. (Harvard University Press, Cambridge, Mass.).

In this book, Eli Ginzberg considers the human capital theory on education and work that demonstrates that education and training, when considered as investments. can explain differences in earnings between different groups in the labor market. Part I emphasizes the need for a more appropriate model for analyzing resources than the present human capital theory. Inadequacies of this model, such as the inconclusive evidence that the rapid expansion of investments increases benefits to both the individual and society, are pointed out. The author stresses the broad role of education as an aid to students in acquiring basic skills in order to manage their lives successfully. In Part II, Ginzberg analyzes dissatisfactions with work, including dissatisfactions arising from the changing roles of women, the position of the blue collar workers, and suggested labor reforms. Part III focuses on public employment and policy. Ginzberg views the present system of developing human resources as a minor instrument in promoting change in our society.

18:3.0/75-2

Education and Job Satisfaction: A Questionable Payoff, Robert P. Quinn and Martha S. Baldi de Mandilovitch, 83 pp. (Survey Research Center, University of Michigan, Ann Arbor).

This volume examines the relationship between education and job satisfaction from a social psychological perspective. The authors review previously published studies and analyze nine national surveys of the American work force conducted between 1962 and 1973. They conclude that while education is clearly a means of social advancement, the benefits in terms of job satisfaction are dubious. Thus, they maintain that continued acceptance of the unsubstantiated assumption that education guarantees occupational payoffs will produce a disillusioned work force. Recommendations for future research and policy changes for employers and educators are discussed in the conclusion.

18:3.0/75-3

The Labor Market for College Graduates: Report of a Seminar, Engin I. Holmstrom, ed., 20 pp. (American Council on Education, Washington, D.C.).

As a result of the tremendous growth in the number of college graduates, the influx of new workers into the labor force has outpaced the growth of new jobs. College graduates are confronted with underemployment, job dissatisfaction, and unemployment. This dismal prognosis led the Policy Analysis Service of the American Council on Education to sponsor a series of seminars to discuss the problems. This monograph is a compilation of ideas from the last of those seminars, held in 1974, and deals with labor market predictions and conditions facing college graduates.

The seminar was divided into four panels. The first panel questioned the validity of employment projections, the second dealt with educational program planning, the third with graduate programs and labor market needs, and the fourth with the impact of affirmative action in a tight labor market. Major questions resulting from the panel discussions concerned the use of manpower projections and how these can be upgraded, how the dissemination of information concerning job opportunities can be improved to ensure that students are aware of manpower needs and training opportunities, and education for contingency and the value of a college degree. Participants concluded that representatives from proprietary schools and industry should combine their efforts in training students to have the skills and general knowledge needed to adapt to the requirements of a vareity of job situations.

See: 24:1.1/72 **Does College Matter? Some Evidence on the Impacts of Higher Education,** Lewis C. Solmon and Paul J. Taubman, eds.

In this volume, distinguished economists, educators, sociologists, and psychologists assess the effects of different types of higher education on different kinds of individuals and on society.

Part I, "Review of the Literature," includes works on schooling and subsequent success, social-psychiatric perspectives in higher education, and monetary returns vs. socioeconomic status, mental ability, and school quality. Part II, "Income-Related Effects on the Educated," deals with all aspects of economic returns on a college education. Part III, "Effects on the Educated: Emerging Areas of Study," covers the effects of college on different groups in society—women, blacks, and other minorities. Part IV, "Public Aspects of Higher Education," is of particular relevance to government policymakers and others in policymaking positions. Here, arguments for and against greater public subsidy of higher education are examined, social policy issues are discussed, and specific recommendations are made. Part V provides a useful overview of research findings on the effects of higher education and sets forth prerequisites for future research on this topic.

18:3.0/72

Socioeconomic Background and Achievement, Otis Dudley Duncan, David L. Featherman, and Beverly Duncan, 284 pp. (Seminar Press, New York).

This monograph examines the social stratification process in the United States by extending the analysis and providing elaborations of the models of intergenerational status transmission presented in *The American Occupational Structure* by Duncan and Blau. The authors focus on the three major sources of status in America (education, occupation, and income), point out imperfections in the correlations between these status dimensions in the first half of the 20th century, and analyze various phenomena that may account for these discrepancies. This book is of interest to students of social stratification, to social scientists, and to all concerned with equal opportunity in American society.

18:3.0/71

Education and Jobs: The Great Training Robbery, Ivar Berg, 200 pp. (Beacon Press, Boston).

This volume is a response to those who view increased education as a means of solving the nation's problems. Ivar Berg examines the relationship between education and employment using data on workers' characteristics and employers' requirements collected from the armed forces and Federal civil service and assembled by the U.S. Department of Labor. He also critically reviews work carried out by the Conservation of Human Resources Project at Columbia University and the Center for Urban Education in New York City. Berg points out the increasing tendency for workers to be in jobs for which they are overqualified in terms of their level of education. He favors placing the overeducated in less crowded upper-level jobs and upgrading those at the bottom into middle-level positions. With this accomplished, the hard-to-employ could fill the less demanding jobs. From Berg's viewpoint, it is essential for policymakers to focus on actions such as the foregoing to increase the demand for labor.

See: 3:1.2/76 **The Overeducated American,** Richard B. Freeman.

In Richard Freeman's view, "overeducation" denotes a society in which the economic rewards of a college education are markedly lower than historically has been the case. He analyzes the lower economic return to a college education in the 1970's as compared with the 1950's and 1960's, when access to a college education was expanded drastically.

Freeman contends that the economic devaluation of the college degree is the result of a current surplus of college graduates. He analyzes the operation of the college job market, explains the reasons for its current weakness, and presents a forecast of future employment and income prospects. He attempts to determine whether the downturn is a temporary or long-term change. He also identifies the college-level professions that have been the most and least affected by the market decline, and examines the effect of the falling market on blacks and women.

Chapter 8, "The Functioning of an Overeducated Society," summarizes the findings of the book, discusses the potential societal implications of overeducation in the job market, and presents alternative strategies for policymakers who must respond to new market realities. Freeman predicts that the market for college graduates will improve in the 1980's, but he expects no improvement for the graduates of the 1970's. Although Freeman's analysis is economic,the material is presented in a readable, nontechnical manner.

4.0 THE CREDENTIALING VIEW

18:4.0/79-1

Education and Jobs: The Imbalancing of the Social Machinery, Gregory D. Squires, 235 pp. (Transaction Books, New Brunswick, N.J.).

Gregory Squire uses data from a variety of sources to show that educational reform has not and will not have a significant impact on inequality in the United States. In making this claim, he compares the class interpretation of education (that the function of education has been primarily to stabilize and legitimize the existing class structure) with the more conventional interpretation (that formal education has expanded in order to provide workers with the increasing level of skills required in a modern industrialized society and to reduce economic inequality). The major policy implication of this volume is that attention must be focused directly on revising class structure biases that generate inequality rather than on trying to alter the behavior of individuals within classes.

18:4.0/79-2

The Credential Society: An Historical Sociology of Education and Stratification, Randall Collins, 222 pp. (Academic Press, New York).

This volume is a critique of the technocratic myth of modern stratification. Randall Collins presents a new, education-based theory of stratification to explain the conditions responsible for producing our modern economy. Data on schools, occupations, and careers are synthesized to show how education operates to preserve group membership and how occupations are monopolized by groups with different resources for cultural solidarity. Collins explains how "an economy of occupational sinecures and a market for cultural credentials, link education to stratification," and he applies his theory to conditions in the United States that have accounted for the expansive, inflationary credential system and the unique features of its occupational structure. In the final chapter, he outlines policy alternatives. These policy implications, along with analyses throughout the book, make it useful reading material for sociologists, educators, and policymakers.

18:4.0/78

Credentialing Educational Accomplishment, Jerry W. Miller and Olive Mills, eds., 225 pp. (American Council on Education, Washington, D.C.).

This book contains a number of analytical papers dealing with the educational and social uses of educational credentials and other uses they could encompass. Specific areas covered include educational credentials as indicators of relevant qualifications in the job market, as qualifications or prerequisites for license in an occupation or profession, as recognition for learning outside the traditional educational setting, as a means to pursue advanced or different objectives, as a reward for educational and personal development, as knowledge for the improvement of counseling, guidance, and placement of students, and as measures in accounting for faculty work loads, the need for funds for institutional budgets, and innovative programs.

The central theme of the book is that the postsecondary educational system should be modified to improve the quality of information conveyed by educational credits and credentials. The authors suggest that, in so doing, lifelong learning should be encouraged, all educational accomplishments should be recognized, the process of awarding credentials should be better explained so that credentials can be used more appropriately by all segments of society, the procedures for assessing educational accomplishments should be improved, unnecessary barriers to mobility and access to educational programs should be reduced, and better understanding among postsecondary institutions and programs of the nontraditional learning experiences available in society should be promoted. The ideas and suggestions offered in this book by various specialists in the field are useful to leaders of postsecondary educational institutions, policymakers in educational associations, the Government, foundations and other who influence postsecondary education, and the users of educational credentials.

18:4.0/76

The Diploma Disease: Education, Qualification, and Development, Ronald Dore, 214 pp. (University of California Press, Berkeley).

Ronald Dore starts from the premise that improvement in education is a means to a better society and that there is much positive to be said for doing the educating in schools and universities. A major tenet of this book is that not all schooling is education; rather, it is qualification-earning, which is anti-educational.

Dore examines the consequences of using schools as a means of deciding who gets prize jobs and who does not and of allowing this sifting function to dominate—even obliterate—the school's traditional function of providing education. Dore offers modest suggestions about what might be done about this situation. The author is aware that his style is exaggerated, but he believes it will serve to provoke further research and experimentation to disprove his evidence or, better still from the author's perspective, to confirm the evidence presented.

5.0 THE JOB MARKET FOR PH.D.'S

18:5.0/81

Underemployed Ph.D.'s, Lewis C. Solmon, Laura Kent, Nancy L. Ochsner, and Margo-Lea Hurwicz, 368 pp. (Lexington Books, Lexington, Mass.).

This book discusses the job market for doctorate holders in the humanities and in science and engineering. It was prompted by the late Allen M. Cartter's predictions that, for the remainder of this century, the academic need for new junior faculty would fall far short of Ph.D. output. If this prediction is correct, higher education institutions will be able to absorb only about one out of five new doctorate holders during the 1980's.

Part I of the book is concerned with the problematic job market for doctorate holders in the humanities, the sciences, and engineering. Part II concentrates on jobs held by humanities Ph.D.'s in the public sector, and discusses policy options to assuage the humanities Ph.D. oversupply problem and alternatives to academic jobs. Part III analyzes data on science Ph.D.'s working outside academe, especially in nontraditional jobs. Part IV discusses how to deal with prospective shortages in the science and engineering labor market resulting from the cyclical nature of the demand-supply interactions.

The authors mention several policy options throughout the book that are equally applicable to the humanities and the sciences. However, the main thrust of the book is that the nonacademic job market must be expanded to accommodate Ph.D.'s from the humanities, the sciences, and engineering, and that these doctorate holders must be willing to look at jobs outside of academe as viable and equally satisfying alternatives.

18:5.0/80

Employment of Humanities Ph.D.'s: A Departure From Traditional Jobs, Betty D. Maxfield and Susan M. Henn, 74 pp. (National Academy of Sciences, Washington, D.C.).

This report presents an analysis of data concerning humanities Ph.D.'s included in the National Research Council's (NRC) 1977 Survey of Doctorate Recipients. The survey itself was designed to obtain current information on the employment characteristics of a stratified sample of scientists, engineers, and humanists who had earned Ph.D.'s within the period January 1934 through June 1976 and who were residing in the United States in February 1977.

By examining demographic, salary, and employment characteristics, this report provides a more useful statistical analysis of the 1977 humanities Ph.D.'s in the labor force than does the NCR report. However, the authors also recommend that followup studies be conducted to discern attitudes about humanities Ph.D.'s work situations, and they raise a number of questions to which further studies might be directed.

18:5.0/79-1

Alternative Careers for Humanities PhDs: Perspectives of Students and Graduates, Lewis C. Solmon, Nancy L. Ochsner, and Margo-Lea Hurwicz, 243 pp. (Praeger Publishers, New York).

This book provides a data-based perspective on the labor market for Ph.D.'s in the humanities. The authors suggest jobs that might be satisfying for humanities Ph.D.'s and ways for graduate programs to prepare students for these jobs. They also describe the characteristics of graduate students so that undergraduate students contemplating advanced study in the humanities can compare their attitudes and competencies with those of their predecessors. Finally, the authors offer a perspective on the future for humanities students and an assessment of the role of graduate humanities faculties in the education and placement processes, showing what it is and what it should be.

18:5.0/79-2

Career Patterns of Doctoral Scientists and Engineers: 1973-1977, National Research Council, 81 pp. (National Academy of Sciences, Washington, D.C.).

This report, which is based on data from the National Research Council's (NCR) 1973 and 1977 Surveys of Doctorate Recipients and from the Doctorate Records File, examines employment characteristics of Ph.D. scientists and engineers as they relate to type of employment, primary work activity, and salary.

The NCR reports the following: over half of the respondents were employed in academe; there was considerable movement into business and industry from academe between 1973 and 1977; teaching was the primary work activity of about half of those employed in academe, followed by research and administration; a substantial percentage of the academically employed switched from one primary work activity to another; business and industry employed fewer women than did academe; Ph.D. plans give a strong indication of the employment sector for 20 years beyond graduation; and median salaries for fully employed Ph.D. scientists and engineers increased 22.5 percent between 1973 and 1977 while the Consumer Price Index increased 43.1 percent.

The information presented here is useful to universities and departments providing doctoral degrees, to agencies concerned with human resources in science and engineering, and to the science and engineering Ph.D.'s themselves.

18:5.0/79-3

"PhDs in Nonacademic Careers: Are There Good Jobs?", Lewis C. Solmon, pp. 3-16 in *Current Issues in Higher Education* (American Association for Higher Education, Washington, D.C.).

In this paper, Lewis Solmon examines the changing character of the academic work force, looking particularly at the shortage of faculty jobs. He deals specifically with Ph.D.'s employed outside academe: whether challenging and rewarding jobs in the private and government sectors exist for Ph.D.'s, and especially for humanities Ph.D.'s, and once such jobs are found, whether those employed are satisfied. The main thrust of the paper is that "students must be more openminded about career options and more active in attaining skills while in school which will be transferrable outside academe."

6.0 FORECASTING

18:6.0/A

Occupational Outlook for College Graduates, 1980-81 Edition, Bureau of Labor Statistics, approx. 200 pp. (U.S. Department of Labor, Washington, D.C.).

This book is a guide to career opportunities in a wide range of occupations where a college degree is or is becoming a requirement for employment. It includes a brief summary of expected changes in economic conditions and an analysis of the overall supply and demand for college graduates through the 1980's. The following information is presented for each occupation: the nature of the work, places of employment, education and training required, the employment outlook, approximate earnings, and working conditions. This volume serves as an aid to career planning for those who attend or are expecting to attend college, as well as to counselors, teachers, and parents.

18:6.0/80

College Enrollment Trends: Testing the Conventional Wisdom Against the Facts, Carol Francis, 72 pp. (American Council on Education, Washington, D.C.).

This book addresses the economic, social, and political decisions affecting enrollments and points out the pitfalls in planning the future around inadequate enrollment projections. First, the author reviews scholarly and popular reports on the outlook for higher education, comparing "conventional wisdom" about past enrollment trends with the facts in order to show that planning may be misguided if not based on factual information.

Second, the author expands the analysis to assess the potentials for offsetting projected enrollment declines. She reviews 12 potential strategies for sources of additional enrollment, ranging from increasing the high school graduation rates of students who would otherwise drop out, to increasing the enrollment of foreign students. For each strategy, trends in the number of people in the relevant group and their college-going rates are examined and projections made. As in the first section, no particular enrollment projection is made or defended.

18:6.0/79

Projections of Science and Engineering Doctorate Supply and Utilization, 1982-1987, National Science Foundation, 79 pp. (U.S. Government Printing Office, Washington, D.C.).

This publication is the National Science Foundation's fourth projection analysis of science and engineering doctorate supply and demand. The study includes new data, new methodologies, new projections of related parameters, and overall projections extending to 1987. Due to the lack of knowledge about interfield mobility, this analysis is confined to broad areas of science and engineering rather than to individual fields. The projections are based on numerical results obtained from studies of human resource development systems for science and engineering and were developed through two alternate sets of supply and utilization models. Sensitivity analyses are presented for the possibility of adjusting the numerical results, and the most likely assumptions are assessed and then integrated into a probable model.

18:6.0/77-1

Manpower Studies in Postsecondary Education, Donald M. Norris, William F. Lasher, and Floyd S. Brandt, 53 pp. (American Association for Higher Education, Washington, D.C.).

This report reviews, analyzes, and organizes the controversy surrounding projections and studies of human resource development. There is a large degree of interest and distrust concerning these studies; opinions come both from those who view the planning of human talent with apprehension and fear the misuse of such data, and those who favor studies of human resources as the primary basis for all planning. The chapter entitled "Improving the Use of Manpower Studies" is especially important because it points out both the major limitations and appropriate uses of human resource planning in higher education and gives suggestions for improvement.

18:6.0/77-2

Supply and Demand for Scientists and Engineers: A Review of Selected Studies, Betty M. Vetter, 54 pp. (Scientific Manpower Commission, Washington, D.C.).

This report examines past, present, and future imbalances in career opportunities in science and engineering. The author assesses the supply for each field, considering the increasing participation of women, and compares it with the demand for both new graduates and experienced scientists and engineers. Although the author considers that future employment opportunities for scientists and engineers are good in comparison to those in other occupations, she does not anticipate full employment over the next decade.

The information presented in this report is useful to young people planning for careers as scientists and engineers, to those who employ them, and to colleges, universities, and other training institutions.

18:6.0/76

Ph.D.'s and the Academic Labor Market, Allan M. Cartter, 260 pp. (McGraw-Hill Book Co., New York).

This book is the late Allan M. Cartter's definitive discussion of the factors that need to be examined in order to predict future human resource needs in higher education. In Cartter's view, the key elements in analyzing the demand for college teachers are knowledge of student-faculty ratios, of the flow of personnel between academic and nonacademic employment, and of retirements. These components of academic supply and demand are analyzed in aggregate terms. However, Cartter stresses the necessity of studying demand conditions in the various academic disciplines for a complete picture of academic employment trends.

Chapter 10, "An Overview of Projected Academic Labor Market Conditions," gives specific recommendations for institutions engaged in graduate education and for funding agencies (such as state boards and legislatures) to improve the forecasting process and to deal with the policy implications of Ph.D. oversupply. Here, Cartter also defines the kind of leadership that Federal agencies should take with respect to retirement policy, graduate fellowships, and periodic data collection.

18:6.0/75

Ph.D. Manpower: Employment Demand and Supply, Bureau of Labor Statistics, 21 pp. (U.S. Department of Labor, Washington, D.C.).

This report provides basic human resource data for Ph.D.'s in an effort to highlight the major factors that should be considered for policymaking and vocational guidance. The data reflect trends among persons holding a doctoral degree in a number of fields, but professional degrees such as M.D. and D.D.S. are excluded. The requirements and supply projections in this report are not forecasts of actual conditions to 1985, but serve to illustrate what could be expected if the trends and patterns of the past decade continue. The insight obtained from such an analysis can be useful in planning careers and educational programs and in identifying the adjustments necessary to cope effectively with supply-demand imbalances.

18:6.0/74-1

Forecasting the Ph.D. Labor Market: Pitfalls for Policy, Richard B. Freeman and David W. Breneman, 50 pp. (National Board on Graduate Education, National Academy of Sciences, Washington, D.C.).

In this publication, the authors critically analyze labor market forecasting techniques for doctorates and stress the limitations of existing tactics. They find current forecasting techniques insufficient because of the omssion of four essential ingredients: individual responses to market conditions, wage-price phenomena, consequences of major policy variables, and interrelations and feedback processes that govern the market.

The authors offer an attractive methodology that assures improved information for decisionmaking and policymaking purposes. This method takes into account likely individual responses to market conditions, giving particular emphasis to supply-side adjustments, and providing a more complex and realistic picture of labor market dynamics.

18:6.0/74-2

Higher Education and the Labor Market, Margaret S. Gordon, ed., 630 pp. (McGraw-Hill Book Co., New York).

This volume is a collection of broad-ranging essays by a number of authors, nearly all of whom are economists. It explores relationships between higher education and the job market, concentrating on such issues as the effects of an unfavorable job market on future college enrollment, the effect of the oversupply of college graduates on the job market, and the possibility of planning long-range programs for colleges and universities that will serve both the individual students and their employers.

Specific topics examined include: employer preferences for degree holders; the private and social economic benefits of education; and the economic outlook for persons in special groups, such as minorities, dropouts, and students who plan to attend professional school. This book concludes with policy implications for faculty unionism, student aid, and enrollment distributions, with special regard for institutions of higher education. This book can be useful to both experts and laypersons as it provides insight into the complex relationship between the production of a highly educated work force and a job market that must adapt to it.

18:6.0/74-3

Scientific and Technical Manpower Projections: Report of the Ad Hoc Committee on Manpower, National Science Foundation, 69 pp. (U.S. Government Printing Office, Washington, D.C.).

This report presents the findings of an ad hoc subcommittee on human resource development appointed by the National Science Board. The committee's task was to carry out a critical comparative study of the present analyses of human resource planning and the assumptions that underlie them. A primary concern was the development of projections of supply and demand that would play a major role in affecting policy decisions.

While all scientific and technical levels are studied, the primary focus is on the doctoral level. The report discusses various points of view on the value of projections, and makes a variety of recommendations for their improvement. The major themes addressed are the accuracy of past projections, methodologies, assumptions and limitations of projections, and recommendations for students interested in a career in the sciences.

18:6.0/73

College Graduates and Jobs: Adjusting to a New Labor Market Situation, Carnegie Commission on Higher Education, 242 pp. (McGraw-Hill Book Co., New York).

This book discusses the relationship between higher education and a new labor market that does not absorb all college and university graduates. The traditional approach to manpower planning—the preparation of students by colleges and universities solely for the labor market—is rejected as a relevant current model for higher education. There is evidence that the fields of study chosen by students are highly sensitive to changes in the job market, and that these changing student choices can be reliable factors in the adjustment to occupational shifts. For example, student choices can be useful guides to colleges and universities for allocating resources among fields.

The Commission recommends that high priority be given to fulfilling the aspirations of young people for more instrumental roles in society and to the goal of conquering human, urban, and environmental problems. It also suggests that institutions of higher education place a greater emphasis on vocational counseling to provide students with the best possible information.

18:6.0/70

Human Resources and Higher Education, John K. Folger, Helen S. Astin, and Alan E. Bayer, 475 pp. (Russell Sage Foundation, New York).

This book examines human resource issues, such as the scarcity of certain professionals and unequal opportunities for competent young people, and considers the implications for higher education. Section 1 focuses on projections of the new supply of college-educated people available to enter each occupation, estimates future demand for the college-educated, and analyzes possible career adjustments. Section 2 discusses factors that determine career choice and some major aids for the adjustment of these choices. Section 3 disproves popular attitudes and assumptions with respect to special populations—e.g., women, immigrants, and those from low socioeconomic groups. Section 4 assesses the validity of policies on human resource development.

The authors conclude that a fuller comprehension of interrelated forces, from manpower planning to the attainment of national goals that determine the education and utilization of human resources, must be developed.

See: 3:1.1/75 **Demand and Supply in U.S. Higher Education,** Roy Radner and Leonard S. Miller.

One purpose of this volume is "to provide a set of related models that can contribute to the debate on policy issues." The authors present quantitative models of input-output relationships: forecasts of academic demand for new Ph.D.'s to show the effects of alternative faculty personnel policies; estimates of human and financial resource requirements of alternative universal 2-year college programs; and estimates of the impact on higher education of significant compensatory education programs in primary and secondary schools.

The authors review the research on the demand of students for enrollment in higher education and then set forth their findings. Areas investigated include the following: (1) the impact of changes in college cost on student demand and how this is related to institutional selectivity, student ability, and student family income; (2) the way in which faculty-student ratios vary with enrollment at both the graduate and undergraduate levels in institutions of differing sizes and quality; and (3) estimates and projections of annual changes in the number of educated persons by age, sex, field of training, and degree held.

This book is readable and easy to understand, and major findings are summarized in the introduction to each chapter. The economic model of higher education used by the National Commission on the Financing of Postsecondary Education was based largely on this study. The study also has implications for educational planning and policymaking with respect to enrollment projections, the faculty job market, access to higher education, and other areas.

See: 3:1.2/71 **The Market for College-Trained Manpower: A Study in the Economics of Career Choice,** Richard B. Freeman.

In this volume, Richard Freeman applies basic economic analysis to the labor market for Ph.D.'s and shows how the allocation of this human resource is explained by price or wage differentials. He examines the role of abilities, preferences, income incentives, and expectations with respect to the marginal decisions on the supply side of the market. To complete the econometric analysis of the Ph.D. job market, three models are employed:

the cobweb adjustment model, which examines oscillatory behavior toward and equilibrium of supply and demand; an incomplete adjustment model in which equilibrium is approached but is not obtained; and a general equilibrium framework, which determines the allocation and salaries of workers between the academic and nonacademic sectors of the economy. The first two models focus on the supply lags inherent in markets in which time is required to train new specialists.

The study finds that foregone income is an important factor in the decision to pursue graduate education. Students' career choices are the result of market incentives: Their expectation of higher income in the future leads them to forego income now. Finally, the university system is also found to respond to market incentives by creating the necessary training programs.

7.0 BASIC DATA SOURCES

18:7.0/A-1

Employment and Training Report of the President, U.S. Department of Labor. 404 pp. (U.S. Department of Labor, Washington, D.C.).

This annual publication reports on employment and training requirements, resources, and utilization. It included the former Department of Health, Education, and Welfare's report on facilities utilization and employment training program coordination as required by the amended Comprehensive Employment and Training Act (CETA) of 1973.

Topics covered in these volumes include employment and unemployment for the year in question, CETA's goals and accomplishments, national program developments, and the changing economic role of women.

18:7.0/A-2

Students Enrolled for Advanced Degress, Fall 19--, National Center for Education Statistics (NCES, Washington, D.C.).

This annual publication reports on a survey conducted by the National Center for Education Statistics on students enrolled for advanced degrees in higher education institutions. This survey was initiated in 1959 to predict the future availability of highly trained professionals for selected scientific fields. Subsequently, the survey was expanded to include all discipline specialties listed in the Higher Education General Information Survey (HEGIS).

The publication provides essential summary data by state, institutional control and level, discipline division and specialty, attendance status, and sex. These data are of use to researchers in predicting future availability of specialists in each field, in identifying changes in the interest of students in graduate programs, and in examining the changing status of women and providing information relevant to compliance with affirmative action plans.

18:7.0/A-3

Occupational Outlook Handbook, 1980-81 Edition, Bureau of Labor Statistics, 484 pp. (U.S. Department of Labor, Washington, D.C.).

This handbook (BLS Bulletin 2075) is a major source of vocational guidance information. It includes, for hundreds of occupations, job descriptions, training and educational requirements, earnings, working conditions, and job prospects. The publication is valuable to anyone seeking satisfying and productive employment.

See: 26:2.1/78-1 **Earned Degrees Conferred,** 19-- to 19--, Andrew J. Pepin and Agnes Q. Wells.

This annual publication on earned degrees conferred by institutions of higher education is based on a survey of degrees and other formal awards conferred between July and June of a given year. The survey is part of the annual Higher Education General Information Survey (HEGIS) conducted by the National Center for Education Statistics.

This report provides institutional and summary data on baccalaureate and higher degrees by level of degree, discipline, sex, state, and control and level of institution. The authors compare data for the year in question with data from earlier surveys.

See: 16:3.0/A-1 **The American Freshman: National Norms for Fall 19--,** Alexander W. Astin, Margo R. King, and Gerald T. Richardson.

This annual publication provides normative national data on the characteristics of first-time, full-time freshmen students. The report was first issued in 1966 as part of the Cooperative Institutional Research Program (CIRP), a longitudinal study of the higher education system in America.

The data in this report have been weighted to provide a representative picture of the college freshman population. The survey instrument used—the Student Information Form (SIF)—is revised each year to reflect the current concerns of the academic community and others who will use the resulting information. The SIF elicits a wide range of biographic and demographic data, plus data on students' high school backgrounds, career plans, educational aspirations, financial arrangements, and current attitudes.

The report includes all institutions with entering freshman classes that responded to the Higher Education General Information Survey. The data are reported separately for men and women and for 38 different groupings of institutions. The data are further stratified by institutional race (predominantly black versus predominantly white), type (2-year, 4-year), control (public, private-nonsectarian), and selectivity of institution (an estimate of the average academic ability of the entering class).

See: 16:3.0/A-2 **Summary Report, 19--, Doctorate Recipients from United States Universities**, National Research Council.

This report presents brief summaries of data gathered from the Survey of Earned Doctorates during the previous academic year. The survey has been conducted annually since 1967 by the National Research Council's Commission on Human Resources.

The data present statistical profiles of doctorate recipients (sex, racial/ethnic group, etc.) based on responses to questionnaires distributed to graduates as they complete requirements for their doctoral degrees. The data cover research and applied research doctorates, with degrees such as Th.D. and Ed.D., but exclude professional degrees such as M.D., D.D.S., and D.M.D.

18:7.0/S-1

Monthly Labor Review, Bureau of Labor Statistics (U.S. Department of Labor, Washington, D.C.).

The Monthly Labor Review reports on various data series that are relevant to labor.

18:7.0/S-2

CPC Salary Survey: A Study of the 19—Beginning Offers. (College Placement Council, Bethlehem, Pa.).

This salary survey by the College Placement Council covers a consistent population that includes 184 placement offices at 161 colleges and universities throughout the United States. This document reports on salary offers from employing organizations in business, industry, government, and nonprofit and educational institutions. The base starting salary offers do not include fringe benefits and overtime. Also, only offers are reported, not acceptances. Various positions, with the exception of teaching, are covered in this report.

18:7.0/S-3

Characteristics of Doctoral Scientists and Engineers in the United States, 19-- (National Science Foundation, Washington, D.C.).

This publication series presents data on the demographic and employment characteristics of the nation's doctoral scientists and engineers. The reports cover persons holding science and engineering doctorates and those who received doctorates in nonscience and engineering fields but who are employed in science and engineering positions.

Along with detailed statistics for the year in question, the reports include data from some of the previous surveys. This inclusion allows comparisons over time on the total population and the total employed labor force, with selected employment data for doctoral scientists and engineers in the major employment sectors—education, business and industry, and government.

18:7.0/S-4

The Endicott Report: Trends in the Employment of College and University Graduates in Business and Industry, 19--, Frank S. Endicott (Northwestern University, Evanston, Ill.).

This volume reports on an annual survey of policy and practice in the employment of college and university graduates in business and industry by 170 companies. The companies responding to the survey range from those specializing in machinery and heavy equipment to those specializing in banking and investments. The data are organized by college level and major. Also included are graduates' reasons for accepting or rejecting offers, companies' reasons for not offering jobs, and turnover.

18:7.0/75-1

The Great American Degree Machine. An Economic Analysis of the Human Resource Output of Higher Education, Douglas L. Adkins, 663 pp. (Carnegie Foundation for the Advancement of Teaching, Berkeley, Calif.).

This technical report reviews a study of the total number of persons holding bachelor's or more advanced degrees from 1930 to 1971. Along with providing detailed annual data on degree holders in 44 fields, Adkins examines four potential models that may explain both the steady growth in the number of degrees awarded and the changes in their distribution by field and degree level. These include the "technogenic" model, which interprets degree aspirations as responses to economic growth and changing marketplace demands, and the "sociogenic" model, which interprets the steady increase in the demand for higher education as a sign of the increasing desire for upward social mobility. The second model also views the phenomemon of "credentialism" as partially due to the tendency of employers to upgrade their educational requirements and to the rising degree aspirations of young people.

Adkins tentatively concludes that his data are more supportive of the sociogenic model than the technogenic model. However, the chairman of the Carnegie Commission predicted that some controversy may surround this conclusion due to dramatic changes in market requirements for college graduates and shifts in the field choices of students. And since at least 1975, it is no longer clear that young people have steadily increased their degree aspirations nor is it certain that decreasing enrollments, which began around 1969, will continue. Another controversial point may be Adkins' conclusion that in the last four decades there has been little change in the representation of women among degree holders.

18:7.0/75-2

Characteristics of the National Sample of Scientists and Engineers, 1974. Part I: Demographic and Educational, 81 pp. (National Science Foundation, Washington, D.C.).

This publication presents the first of three reports by the National Science Foundation on the 1974 National Survey of Scientists and Engineers, the first in a series of surveys conducted biennially by the Bureau of the Census. It contains detailed information on the demographic, educational, and employment characteristics of 50,000 of the nation's scientists and engineers identified in the 1970 population census. The subsequent two reports of this three-part series will focus on the employment and geographic characteristics of the sample.

Findings from this and future surveys will interest investigators examining changes in the characteristics of scientists and engineers over a substantial period of time.

18:7.0/75-3

The 1972 Scientist and Engineer Population Redefined, Vol. 1, Demographic, Educational, and Professional Characteristics, National Science Foundation, 194 pp. (NSF, Washington, D.C.).

The 1972 Scientist and Engineer Population Redefined, Vol. 2, Labor Force and Employment Characteristics, National Science Foundation, 135 pp. (NSF, Washington, D.C.).

These two comprehensive volumes report the information obtained in the 1972 Professional, Technical, and Scientific Manpower Survey, also known as the 1972 Postcensal Survey. Volume 1 presents detailed statistics on the demographic, educational, and professional characteristics of 1.3 million scientists and engineers in the United States. The material was drawn primarily from a national occupational sample of persons in the 1970 census. Volume 2 concentrates on the labor force and employment characteristics of this same group.

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